

A Look At Soviet Deep Operations: Is There An Amphibious Operational Maneuver Group In The Marine Corps Future?

CSC 1994

Subject Area - Operations

EXECUTIVE SUMMARY

Title: A Look at Soviet Deep Operations: Is There an Amphibious Operational Maneuver Group in the Marine Corps' Future?

Author: Major Elvis E. Blumenstock, United States Marine Corps

Thesis: What is the feasibility of adapting the concepts of Soviet deep operations theory to future Marine Corps and joint operations?

Background: This paper is based on the supposition that the future employment of U.S. military forces will be in joint operations focused against third world threats. The current trend of proliferation of high-technology weapons to third world countries will result in many nations that have small, but modern, forces with high battlefield leverage. Faced with less resources, more potent threats, and the need to win quickly, future joint commanders will be required to employ their forces with imagination. To win, they must seize the initiative early and hold it to the end. This paper suggests that a joint doctrine that emphasizes the full potential of deep operations to impact battle on an operational level provides the means to rapidly defeat the enemy.

This paper examines the feasibility of adapting the more prescriptive Soviet deep operations doctrine for use in future U.S. joint campaigns. To determine the feasibility of using Soviet deep operations doctrine as a template for a more thorough U.S. deep operations doctrine, the development and features of Soviet deep battle and deep operations theory are explored to identify lessons of possible benefit. The Soviet Manchurian Campaign of August 1945 is examined to validate Soviet theory. This theory of deep operations, as manifested by an amphibious OMG, is then evaluated to determine applicability to future Marine Corp amphibious operations.

Recommendation: The U.S. should adopt a joint doctrine, similar to that envisioned by the Soviets in the late 1980s, that emphasizes the full potential of deep operations to impact battle on an operational level and provides the means to rapidly defeat the enemy.

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 1994		2. REPORT TYPE		3. DATES COVERED 00-00-1994 to 00-00-1994	
4. TITLE AND SUBTITLE A Look At Soviet Deep Operations: Is There An Amphibious Operational Maneuver Group In The Marine Corps Future?				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) United States Marine Corps,Command Staff College, Marine Corps University,2076 South Street, Marine Corps Combat Development Command,Quantico,VA,22134-5068				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 80	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

TABLE OF CONTENTS

Chapter

1.	INTRODUCTION	1
	Current Doctrine	4
2.	SOVIET DEEP OPERATIONS THEORY	6
	The Emergence of Deep Operations	6
	The Great Patriotic War	10
	The Revolution in Military Affairs	13
	Lessons From the Past	18
	Surprise	18
	Organized Entry	19
	Multiple Insertion Points	19
	Coordination	19
	Air Superiority	19
	Air Support	20
	Command and Control	20
	Task-Organization	20
	Fire Support	21
	Integrated Fires in Depth	21
	Combat Weight	21
	Bypass Major Strongpoints	21
	Night Operations	21
	Logistics	22
	Conclusion	22
3.	SOVIET FAR EAST CAMPAIGN, MANCHURIA, AUGUST 1945	23
	Introduction	23
	Setting	24
	Soviet Situation	24
	Japanese Situation	26
	The Plan	27
	The Offensive	28
	Analysis of the Offensive	30
	Conclusion	38
4.	ANALYSIS AND EVALUATION	40
5.	CONCLUSION	48
	ENDNOTES	64
	BIBLIOGRAPHY	72

LIST OF ILLUSTRATIONS

Figure

1.	Soviet Organization in World War II	52
2.	Front-Subordinated OMG Deep Operations	53
3.	Operational/Tactical Air Assault	54
4.	Kwantung Army Dispositions	55
5.	Japanese First Army Dispositions	56
6.	Japanese Third Area Army Dispositions	57
7.	Japanese 4th Separate Army Dispositions	58
6.	Kwantung Army Defense Plan	59
9.	First Area Army Defense Plan	60
10.	Third Area Army Defense Plan	61
11.	The Soviet Armed Forces' Manchurian Campaign, August 1945	62
12.	Problems and Solutions of the Operational Plan	63

CHAPTER 1

INTRODUCTION

Striving for the defeat of the enemy in great depth is a characteristic feature of armed struggle of all times: to carry out successfully combat missions and achieve complete destruction of the enemy in a short period of time has always been sought with the aid of deep attacks. In various ages, the means of inflicting deep strikes and their scope depended on the degree of development of weapons and combat equipment, and on the political and strategic goals in a war.¹

Deep attacks are not uncoordinated, chance attacks on separate objectives of the defender, but coordinated actions of various types of armed forces according to a unified plan directed toward the solution of specific operational and strategic tasks within the limits of the theater of military operations.²

Maj Gen Kh. M. Dzhelaikhov, USSR, 1966

AUGUST 2010. U.S. military commanders attribute the lightning quick victory of U.S. coalition forces against OPFOR to U.S. deep operations doctrine. According to this new doctrine, U.S. forces use a multitude of methods to attack deep into enemy territory. The objectives of such deep attacks are to: 1) destroy enemy nuclear weapons, command, control, and communications (C³), and air defense assets; 2) disrupt or seize enemy lines of communications (LOCs), logistic bases, and airfields; and 3) attack and fix enemy operational reserves. If successful, such deep operations switch the focus of the fighting into the enemy rear by creating chaos and disorganization throughout the depth of the enemy defenses and, ultimately, limit the freedom of maneuver and effectiveness of enemy actions.

The joint force commander (JFC) during the recent war conducted a coordinated campaign that relied on extensive deep operations by air, missile, and ground forces plus

amphibious, air assault, and airborne *desants*.³ While the U.S. coalition was building combat power in ALLY, coalition aircraft and missiles attacked key command and control sites and provided deep defensive fires. The ground offensive began at midnight on 8 August 2010 with coalition forces attacking across the entire front. Concurrent with this attack, air, missile, and special forces attacked deep into the OPFOR rear. By Day 2 of the ground offensive, coalition forces penetrated the OPFOR defensive line in two places, allowing elements of a reinforced U.S. Army heavy armored brigade entry into the OPFOR rear. The brigade consolidated at a predetermined site and moved toward the OPFOR capital. The brigade's progress was rapid. Air assault and airborne attacks secured critical road intersections and canal crossing sites along its route of march, fixed key enemy targets in place, and assisted the brigade, which chose to move mostly at night.

With the brigade's attack toward the political center of OPFOR, an amphibious assault by a brigade-sized force proved to be crucial. The Naval Expeditionary Task Force (NETF) successfully used its long reach to surprise OPFOR forces. Just after midnight on 9 August, U.S. Marine forces landed over multiple beaches that were only lightly defended using the new Advanced Assault Amphibian Vehicle (AAAV) and Landing Craft Air Cushion (LCACs). Marine air assault forces mounted in the new V-22 tiltrotor protected the landing forces while Light Armored Reconnaissance (LAR) units screened a wide perimeter. The brigade consolidated at a point thirty to forty kilometers from the beach. By midmorning of 9 August, the Marines were enroute to their objectives-several nuclear capable ballistic missile launch sites and a nuclear generation and missile fabrication facility-150 kilometers away.

The combat power of the Marine brigade consisted of two mechanized battalions (AAAV), a tank battalion (M1A1), one air assault battalion (V-22), a LAR Battalion minus,

and an attack helicopter squadron. A U.S. Army Multiple Launch Rocket System (MLRS) battery, numerous batteries of lightweight 155mm howitzers, and NETF close air support (CAS) aircraft provided firepower for the brigade. Army Tactical Missile System (ATACMS) and Joint Force Aircraft Component Commander (JFACC) aircraft contributed additional fire support. Mobile combat service support detachments using a new family of tactical vehicles, C-130 tactical transport aircraft, and V-22s sustained the brigade.

The Marines operated at night, resupplying and refitting during daylight hours in hide positions. A link to Joint Surveillance and Targeting Attack Radar System (JSTARS) and other theater intelligence assets, plus Marine Remotely Piloted Vehicles (RPVs), provided the Marine commander with a real-time picture of OPFOR elements, thus allowing units to avoid decisive combat. The Marine tiltrotor battalion, LAR battalion, and coalition special forces provided blocking forces, occupied key bridging and fording sites, secured the airbases necessary for logistics support, and held local OPFOR units in place. JFC assets achieved local air superiority before the landing, and NETF aircraft, plus Avenger, LAV-AD, and Stinger air defense systems, maintained air superiority throughout the operation.

Many viewed the deep strike by the Marines as extremely risky. Superior intelligence gathering capability, a high level of proficiency, training emphasizing initiative and freedom of action, and audacity offset the perceived risk. The Marines successfully completed their mission, coordinating their attacks with the U.S. Army brigade in predawn attacks on 12 August.

The coalition effort was a resounding success. The total battle lasted less than thirty days. The protracted, bloody battle of attrition, expected by many, was avoided. Once the Army and Marine brigades achieved their missions of securing the political center of OPFOR

and capturing the OPFOR nuclear capability, the OPFOR commander's only option was to commit his operational reserves. However, the coalition deep attacks severely hampered such efforts. He discovered that he was unable to respond and that his main defensive line was quickly defeated. The OPFOR commander was left to ponder how his well-trained, well-equipped, and modern armed forces could be beaten so quickly, especially since his forces held a numerical and positional advantage.

The JFC provided the answer. The cumulative effect of the coalition deep operations disrupted the OPFOR decision cycle, limited the OPFOR freedom of maneuver, and forced the OPFOR to fight on the JFC's terms. The result was a quick victory against a well-trained, well-equipped, and numerically superior enemy.

Current Doctrine

The concept of deep operations is not a new or revolutionary one. World War II provides many well-known examples of maneuver warfare and deep operations. Guderian, Rommel, and Patton are among prominent commanders known for their penchant for deep battle. Some trace the theory of deep maneuver back to the use of strategic cavalry raids during the Civil War.⁴ Others trace its origins to the pre-Napoleonic period to such commanders as Gustavus, Marlborough, Frederick, and Guibert.⁵

More recently, both U.S. and Soviet warfighting doctrines have recognized the importance of deep operations. The Soviet study of operational art began with the Soviet Civil War (1918-1920). One of the more important theories to evolve from this study concerned the theory of deep battle and deep operations. From this beginning, the Soviets continued to develop and refine their capability to conduct deep battle. The result was that by the late 1980s, the Soviets had a comprehensive doctrine for the conduct of deep operations

that took advantage of every conceivable method to strike deep into enemy territory.

Despite the current emphasis on the operational level of war in U.S. staff colleges and the historical precedents for its use, little has been written concerning deep operations at the operational level. The Marine Corps cornerstone document for maneuver warfare, FMFM 1, Warfighting, discusses the philosophy of maneuver but fails to address any specifics, including deep operations. FMFM 1-1, Campaigning, discusses maneuver in greater depth at both the operational and tactical level, but limits discussion of deep operations to air operations.

The MAGTF commander can use the inherent reach of his organic aviation to see and shape the course of the campaign in time and space well in advance of the close combat of ground forces. . . . Such activities include attempting to ascertain the enemy's operational intentions; delaying enemy reinforcements by interdiction; degrading critical enemy functions or capabilities such as command and control, offensive air support, or logistics; and manipulating the enemy's perceptions.⁶

The Army's FM 100-5, Operations, takes a more comprehensive view of deep operations. It defines deep operations as:

...operations designed in depth to secure advantages in later engagements, protect the current close fight, and defeat the enemy more rapidly by denying freedom of action and disrupting or destroying the coherence and tempo of its operations.⁷

While the role of firepower is acknowledged, the integration of firepower and maneuver is necessary to make the Army's deep attack successful. Airborne, air assault, attack aviation, and high-speed armor forces provide the capability to strike deep.⁸ An area overlooked, however, is the utility of amphibious operations as a part of deep operations.

Soviet and U.S. thinking on deep operations is obviously compatible. However, Soviet theory for deep operations is more inclusive. What, then, is the feasibility of adapting the concepts of Soviet deep operations theory to future Marine Corps and/or joint operations?

CHAPTER 2

SOVIET DEEP OPERATIONS THEORY

The Soviet Army has studied and developed the operational level of war since the early 1920s. Since then, a select group of intellectuals, focusing on an offensive style of maneuver warfare, has studied and written on the subject. From this study, many operational theories have evolved. Of these theories, one of the more significant is the theory of deep battle (a tactical measure) and deep operations (a more complex operational measure).¹ The Soviet army successfully used these concepts in World War II to defeat the vast German war machine. From this auspicious beginning, the Soviet army has developed the concept of deep operations into a comprehensive doctrine for warfare in depth.

The Emergence of Deep Operations

In strict contrast to the positional warfare and crushing firepower of World War I, small forces fought the Russian Civil War over immense areas. Lack of troops forced commanders to mass forces and create shock groups in critical areas. These shock groups, often augmented with cavalry forces as "mobile groups", were able to penetrate the shallow enemy defenses and exploit into the operational depth of the defenses. Offensive maneuvers, such as deep slashing attacks and envelopments, were effective.² Maneuver became a requirement for victory, giving rise to a generation of officers experienced in maneuver warfare.

It was this generation of officers, most notably Marshal M. N. Tukhachevsky and Marshal V. K. Triandafillov, that most influenced the development of operational art in the

Soviet Union.³ They are credited with laying the foundation of modern Soviet operational and tactical doctrine.⁴ It is only natural that they would draw upon their experience from the Civil War to anticipate the problems of future warfare.

Tukhachevsky, drawing upon his experiences as a commander on the Vistula in 1920, and S. S. Kamenev, Commander of the Red Army from 1919 to 1924, rejected the concept of a single, climatic battle of annihilation. Instead, they stressed the importance of conducting successive operations. This focused the efforts of military theorists on the range of activities between strategy and tactics-the area that has since become operational art.⁵

Tukhachevsky continued to refine his concept of successive operations. By 1926, he wrote:

Modern operations involve the concentration of forces necessary to strike a blow, and the infliction of continual and uninterrupted blows of these forces against the enemy throughout an extremely deep area. . . . Battle in a modern operation stretches out into a series of battles not only along the front but also in depth until that time when either the enemy has been struck by a final annihilating blow or when the offensive forces are exhausted.⁶

From 1928 to 1929, Tukhachevsky and Triandafillov continued to explore this idea. During this time, Tukhachevsky introduced the concept of simultaneity. He argued that a mass army was needed to contact the enemy over a broad front to pin him down. Then, at the decisive point and time, the front commander could launch the reserve, or "shock army," to fight into the enemy's rear. Tukhachevsky also began to think deeper, because tanks and aircraft provided the means to go deep.⁷

Triandafillov developed the theory of successive operations a step further by exploring methods to penetrate the enemy's defenses and extending the battle using a mechanized, all-arms force, the "shock army", including aviation. The 1929 Field Regulation (*Ustav*)

formalized this concept as deep battle, a tactical measure to gain success in penetrating the enemy tactical defenses by the simultaneous use of tanks, infantry, artillery, and aviation.⁸

The concept of deep operations took longer to crystallize. Early experimentation from 1931 to 1933 with deep battle, during a series of studies, map exercises, and war games, laid the theoretical foundation of deep operations theory. In February 1933, the Red Army officially sanctioned deep battle.⁹

The Field Regulation of 1936, authored by Tukhachevsky, defined the principles and practice of deep battle and outlined the theoretical principles of deep operations. The 1936 *Ustav* defined deep operations as:

Simultaneous assault on enemy defenses by aviation and artillery to the depths of the defense, penetration of the tactical zone of the defense by attacking units with widespread use of tank forces, and violent development of tactical success into operational success with the aim of the complete encirclement and destruction of the enemy.¹⁰

According to Tukhachevsky, deep operations objectives included operational reserves, army headquarters, major communication sites, airfields, long-range artillery, and major logistics sites.¹¹

The Soviet concept expected both *fronts*¹² and armies to conduct deep operations. It expected a *front* to attack to depths of 150-250 kilometers and an army to attack to depths of seventy to one hundred kilometers.¹³ Operational formations consisted of an attack echelon, an exploitation echelon (mobile group), reserves, aviation, and airborne forces. By 1936, the Soviets had created new mobile units to spearhead deep operations and fielded airborne units to cooperate with exploitation forces. Mobile groups of tank, mechanized, and cavalry corps composed these exploitation forces. The concept also placed a strong emphasis on air defense by aviation and air defense artillery.

Development of deep operation theory continued after its genesis in 1931 to 1933.

Initially, the development concentrated on the study of different variations of when and how to commit the exploitation echelon. Normally, the Soviets committed the exploitation echelon once they had penetrated the tactical defenses, on or about D+1. Secondly, the mobile group's objective was the enemy operational reserves. Working in coordination with aviation and airborne forces, the mobile group would attack out to one-hundred kilometers, sponsoring raids against enemy installations and conducting blocking attacks. Being a strong proponent of surprise, Tukhachevsky also studied ways to conceal the movement of the first echelon into attack positions, hence, gaining a critical initial advantage.¹⁴

The Soviets tested the principles of deep operations in large-scale exercises in 1935 and 1936 and in battle from 1938 to 1940. The Soviets felt that these exercises validated the theory although some elements required refinement.¹⁵ However, deep operations differed from deep battle by requiring aviation, airborne, and mechanized forces to work together and operate independently of the main force. The requirement to reach the operational depth meant a penetration of fifty to sixty kilometers.¹⁶ The Soviets did not have the technology or experience to achieve this until the latter stages of World War II.

By 1936, the Soviet Army fully recognized deep battle and had defined the concept of deep operations. Chief of Army Staff Tukhachevsky applied these theories and by 1936 had created four mechanized corps capable of conducting deep battle. Unfortunately, Stalin reversed the trend of operational thinking and army modernization during the Great Purge of 1937 to 1938.

The effect of Stalin's purge of the military was immense.

"Events in the spring of 1937 shook the Red Army to its foundations: . . . the army was decapitated." Those who had originated the theory of deep

operations "were declared enemies of the people," and the theory itself was "disavowed" and eliminated from all the forms of instruction."¹⁷

Stalin's purge killed Tukhachevsky and disgraced, arrested, jailed, or executed his followers. The Soviet Army destroyed Tukhachevsky's work on force structure and disbanded the four mechanized corps before the beginning of World War II. Attritional thinking prevailed over maneuver in the Red Army.

However, the concept of deep operations did not die. Work on deep operations theory continued at the General Staff Academy and other senior officer academies. Although it only existed in draft form, the 1939 Field Regulation included the work on deep operations theory. The 1939 *Ustav* also included a new chapter on the principles of the offensive. The General Staff updated the draft 1939 *Ustav* in 1941 and it became the final prewar set of regulations.¹⁸

The Great Patriotic War

As war spread across Europe, the high price of Stalin's purge became apparent. The rapid defeat of Poland in 1939 and the collapse of the French in 1940 shocked the Soviet leadership. The Soviets apparently realized that the Germans were proving the success of Tukhachevsky's theories and vainly tried to rebuild a large mechanized force.¹⁹ However, the Soviets were only partially prepared for the German attack in June 1941. The ineptness of all but a few in the ranks of the post-purge senior commanders compounded this lack of preparation. In battle after battle, the German army maximized surprise and quickly overwhelmed Soviet defenses. The Soviets' attempts to go on the offensive were uncoordinated and quickly defeated.

Stalin's attempts to command the war effort through three *fronts* failed. On 23 June

1941, Stalin created the *STAVKA* of the Supreme High Command to provide uninterrupted command and control of the War.²⁰ *STAVKA* played a pivotal role in the eventual rehabilitation of Tukhachevsky's ideas and lay the foundation for Soviet victory. The Soviet chain of command was very complicated (see Figure 1). However, *STAVKA* had a direct link to the field forces down to the army and corps level. *STAVKA* instructed the front commanders on the aims of each operation, allocated resources, directed missions, and ensured coordinated efforts of fronts and higher. With disaster looming, *STAVKA* quickly took action. It replaced inept commanders, focused the reeducation of military commanders on Tukhachevsky's theories of the 1930s, and started a laborious effort to reorganize the army to support these concepts.

The first step in reverting to Tukhachevsky's deep operations theory was the *STAVKA* directive of 10 January 1942. The directive ordered front and army commanders to stop spreading their divisions across the entire frontage when launching a counteroffensive. Instead, they were to form "shock groups" operating on main thrust lines. The directive also formed two tank armies in June 1942 to function as a shock group. Next, the Resolution of 16 March 1942 ordered the formation of *STAVKA* reserves.²¹

STAVKA Orders No. 306 and 325 quickly followed these moves in October 1942. *STAVKA* Order No. 306 required commanders to use single echelon formations when attacking German defenses. Order No. 325 directed all tank and mechanized corps be employed in the exploitation echelons of tank and all-arms armies and committed early to rapidly develop the offensive.²²

The Soviets experienced many problems turning Tukhachevsky's style of aggressive maneuver into reality. Only a few key officers understood the concept of deep battle.

However, the offensive operations conducted in 1941 and 1942 provided the experience upon which to base improvements in techniques and equipment. Through trial and error, commanders and staffs became proficient in offensive maneuver. This experience provided the basic techniques that were refined in 1943 and perfected in 1944 and 1945.

The first mobile groups capable of extended deep penetration of German defenses appeared at the Battle of Kursk in 1943.²³ Early Soviet experimentation with small tank brigades, working with cavalry and airborne units, to spearhead pursuits led *STAVKA* to mandate "shock groups." By early 1943, the Soviet Army fielded the first shock groups, tank and mechanized corps, for use at the army level. The Soviets intended to use these corps as "mobile groups" for exploitation to depths of 50 kilometers. They structured the first front level mobile groups (tank armies) as Tukhachevsky had envisioned. These mobile groups were instrumental in the breakout at Kursk.

The offensive operations of 1943 produced the template, published in the 1944 Field Regulation, for the successful offensives of 1944 and 1945. This regulation did not specifically discuss deep operations, apparently because Tukhachevsky's theory was still disavowed. However, the central theme of the 1944 *Ustav* was the exploitation of penetrations by mobile groups into the operational depth of the enemy. Finally, the Soviets achieved the full intention of the 1936 *Ustav*.

The general pattern for the conduct of deep operations changed little after 1943. Offensive operations depended on maneuver. Each front had a mobile group of one to three tank armies; each army had a mobile group of one to two tank or mechanized corps. *Fronts* routinely attacked to depths of 150 to three hundred kilometers, armies to depths of one hundred to 150 kilometers. Operational pursuit was important and occurred both day and

night at high tempo. Typically, first echelon forces penetrated the tactical defenses. The mobile group then attacked into the enemy rear to "perform the mission of creating conditions for developing tactical success into operational, and sometimes into operational-strategic."²⁴

Mobile groups were not simply second echelon forces. Mobile groups had specific missions that included the following: 1) defeating enemy operational reserves (one of the main missions), 2) encircling enemy forces, 3) fixing enemy reserves in place, 4) occupying important objectives for follow-on forces, 5) pursuing a retreating enemy, 6) disrupting command and control, and 7) disorganizing the enemy rear.²⁵

Another important difference between mobile groups and second echelon forces was that commanders committed mobile groups early in the operation, normally between D+2 and D+5. Mobile groups normally attacked through penetrations, gaps, or open flanks and, once through the enemy's tactical defenses, often achieved average daily rates of advance ranging from forty to one hundred kilometers.²⁶

There are several examples of Soviet campaigns using deep operations, the most notable being the Belorussian (June 1944), Vistula-Oder (January 1945), and Manchurian (August 1945). The Soviets concluded that these operations were successful because of swift, decisive, and continuous day and night operations.²⁷ These studies form the basis of the Soviet concept of deep operations during the 1980s.

The Revolution in Military Affairs

The offensive concepts of the Soviet Army changed little in the years immediately after World War II. Stalin focused on maintaining large conventional forces to deter U.S. nuclear capability. But Soviet military theory during this time was clearly based on the concepts of the 1944 *Ustav* as amended by the experiences of the 1945 campaigns, in

particular the Manchurian Campaign. The military expected *Fronts* to be the base units for future warfare. The preferred style of maneuver was the encirclement, and the Soviet Army viewed deep operations as the key to rapid victory. One change during this period was that stronger, better-balanced mechanized armies replaced tank army mobile groups. A more significant change for the future was the increased integration of airborne forces into deep operations. The Soviets expected mobile groups to conduct sustained strikes in cooperation with airborne divisions dropped deep in the enemy rear. The result was that the depth of mobile group operations extended beyond World War II norms.

Only a radical shift could have changed the Soviet offensive concept. The death of Stalin in 1953 and the increasing impact of nuclear weapons on future warfare provided such a radical shift. With Stalin's death, military theorists were free to examine all aspects of the military art. They waged theoretical debates over the importance of large conventional forces versus large nuclear forces. These debates ended in 1960 when Khrushchev fully embraced the concept that the next war would be nuclear. This signaled the shift away from the operational level to the strategic level of war. Strategic rocket forces became preeminent; ground forces became secondary.²⁸

After 1960, the Soviets expected any conflict to be nuclear from the beginning. They dropped the term mobile group because the Soviet army was completely mobile and did not assign any specific forces the task of deep operations. The operational concept during this time was relatively simple--tank, motorized rifle, and airborne forces would complete the breakthrough through gaps made by nuclear weapons and advance into the operational depth of the enemy defense.

The dominance of nuclear war and strategy began to fade in the mid-1960s. The

search for the ideal force to overcome the effects of the nuclear battlefield led to the reemergence of the operational art as a major area of study. World War II became the focus of this extensive study. In 1965, the Soviet General Staff published an anthology of the works of the theorists of World War II. This collection of works marked a renewed interest in deep operations and the beginning of the rehabilitation of Tukhachevsky's theories.²⁹

By the 1970s, the operational focus became one of depth. Deep battle and deep operations became major areas of study with specific emphasis given to the mobile groups of World War II. The study selected as case studies those operations considered especially relevant to modern operations: Belorussia, Vistula-Oder, and Manchuria.³⁰

By the 1980s, the Soviets believed that only maneuver would win the next war. The search for maneuver techniques that would exploit the potential of modern technology partially inspired their study of World War II. This study determined deep operations to be the concept that best combined the time-proven operational concepts of the past with modern technology. The study also viewed deep operations as essential to achieve rapid success.

The concepts of Tukhachevsky's deep operation theory and the experience of the World War II mobile groups provided the basis for the concept of deep operations in the 1980s. The nature of deep operations, however, had changed.

The enemy will be defeated not by classic penetration and envelopment operations conducted by deeply echeloned, patterned forces. . . but rather by numerous axes, by vertical [and amphibious] *desants*, and by strikes against the enemy rear area by ground and air-delivered forces.³¹

Deep operations required simultaneous fire suppression throughout the depth of enemy defenses, rapid penetration of the enemy's tactical defenses, and high-speed ground attacks by task-organized ground maneuver forces called Operational Maneuver Groups (OMGs).

However, the Soviets did not limit the type of forces suitable for deep operations to the OMG. They also saw air assault (meaning heliborne and airborne forces), amphibious, and special purpose forces *desants* as performing deep missions on a large scale.

The Soviets believed the key to success of deep operations was the use of all these aspects of combat power under the control of a single commander. As a result, they centralized operational planning at the theater of military operations. The front, vice the army, became the operational maneuver element of choice. *Fronts* in the 1980s included one or two echelons, an exploitation force (OMG), rocket and artillery forces, aviation, air defense forces, special operations forces, air and amphibious assault forces, a complex and widely deployed logistics structure, plus special units and reserves.³² Soviet armies included similar, yet smaller, units without aviation, special operations, and amphibious forces.

Fronts would attack on a broad frontage at night. Forward deployed units would either act as holding forces or penetration forces. The Soviets deployed the OMG by dispersed divisions and committed it from D+1 to D+3. They expected the OMG to advance through the tactical defenses in dispersed formations and to reconsolidate at a designated assembly area before continuing the attack. In fact, the Soviets believed the enemy might not recognize the OMG for what it was until it had reorganized in the enemy rear.

Much like its predecessor, the mobile group, the OMG's purpose was to shift the focus of combat to the enemy rear, to divert attention and combat resources from the main battle, and to maintain a rapid attack tempo. Its missions were also very similar to those of the mobile group. The OMG could assume the following missions: 1) destroy or disrupt enemy C³, airfields, air defense, nuclear weapons, and logistics assets; 2) disrupt or seize enemy C⁴, LOCs, and airfields; 3) seize key objectives such as bridgeheads and road

junctions to assist the advance of the main forces; 4) establish blocking positions to support the advance of main forces or to deny enemy forces a withdrawal route; 5) fix or defeat enemy operational reserves; and 6) seize important economic or political objectives.³³ The OMG advanced to depths of 175 kilometers or more.³⁴ Figure 2 shows a graphic depiction of a front's OMG deep operations.

The Soviets coordinated and supported the OMG's attack with attacks of air and seaborne *desants*. The Soviet Military Encyclopedic Dictionary defines *desant* as "forces, specially prepared and landed or designated for landing on the enemy's territory for the purpose of conducting combat actions."³⁵ This implies that the force arrives in any direction other than the shortest straight line from its point of departure and by means other than its own mobility.³⁶ Operationally, it encompasses the range of major airborne, heliborne, and amphibious forces to small special operations forces and individual agents.

Airborne and air assault units, up to brigade/regimental size, conducted attacks in cooperation with the OMG. Figure 3 shows a graphic depiction of such forces in support of an OMG. Where coastal conditions allow, *desants* included amphibious forces committed at operational depth. The missions assigned to these airborne, helicopter, and amphibious assaults include those missions assigned to the OMG plus: 1) seizing important maritime straits, islands, ports, and naval bases; 2) forcing the withdrawal from the war of selected governments of the enemy alliance; 3) establishing a second front; 4) assisting the OMG or main forces in traversing obstacles such as rivers and mountains; and 5) supporting the advancing OMG or main forces in encircling and destroying enemy units.³⁷ Special operations forces also performed many of the same missions but on a more limited scale. Additionally, special forces conducted reconnaissance and attacked high value targets in the

enemy rear to disrupt the enemy's ability to respond to the offensive.

As Richard Simpkin cites, the concept of desanty was very important to the Soviets and to deep operations.

To the scope of operations by ground forces (which one now takes to include helitroops) must be added seaborne and (fixed wing) airborne desanty, and the whole spectrum of special operations. Soviet teaching and public relations slants leave no doubt of the importance attached to these.... These forces would now play a major part in any Soviet front-level offensive, probably a dominant part in the opening offensive of a war or campaign, and-a fairly recent study of mine suggests--the decisive part in a scenario involving strategic surprise. In fact desanty and special operations are exemplary manifestations of the fundamentals of manoeuvre theory-surprise, leverage, simultaneity, and interchangeability.³⁸

Simpkin also states that the "concept of desanty is fundamental to contemporary deep operation theory, indeed to modern manoeuvre theory as a whole."³⁹

Aviation forces attacked targets in support of and in coordination with other attacking units. The air operation focused on the destruction of enemy air and air defense assets, C³, nuclear weapons, logistics assets, and other critical assets throughout the theater. Aviation, missile, and rocket forces attacked throughout the depth of the battlespace.

The various attacks of the deep operation may look random and disorganized with no coordinated purpose. However, the Soviets planned deep attacks at the theater level with a common objective--the development of tactical success into operational success and the rapid defeat of the enemy. These attacks began as early as possible to help ensure defeat of the enemy from within and to maintain the rapid tempo that Soviet offensive doctrine dictates.

Lessons From the Past

The Soviets have conducted extensive studies both of the theory of deep operations and of past experiences. The current theory of deep operations incorporates the many lessons

gleaned from this effort and refines them in light of modern technology. A brief description of many of these aspects highlights the difficulty, yet possibility, of deep operations.

Surprise. The Soviets consider surprise, secrecy, and deception as essential for successful deep operations. The Field Regulations of 1944 said that surprise is fundamental to victory.⁴⁰ Secrecy in planning and execution, confusing the enemy, attacking unexpectedly, and using new combat formations are ways to achieve surprise. Surprise provides the initiative; it is a force multiplier. It allows the aggressor with smaller forces to achieve its objective. This was often the case for the Soviets in World War II, most notably in Manchuria.⁴¹

The solution to achieving surprise is deception. Modern reconnaissance methods make it extremely difficult to deny information to the enemy. The deception plan seeks to draw the enemy's attention to the wrong area. The exact location of the OMG is concealed from the enemy using camouflage, radio silence, and deception.

Organized Entry. Successful deep operations consider organized entry an important condition. Generally, OMGs should not have to create their own breakthrough through the enemy tactical defenses. During times when it is necessary for the OMG to complete the breakthrough, the success of the OMG is at risk. Any delay provides the enemy time to react and bring superior power to bear.

Multiple Insertion Points. This provides many advantages. First, it eases C4, traffic control, and air defense coordination problems. Second, it makes it more difficult for the enemy to identify the main attack and main axis. Third, if one column fails, the OMG will not have failed. And last, it reduces the time it takes to insert the force, thus reducing the risk at the force's most vulnerable period.⁴²

Coordination. The level of coordination between deep maneuver units and supporting agencies often determines the success of deep maneuver units. In World War II, for example, detailed coordination insured the success of mobile groups. The creation of command at the theater of military operations level virtually guaranteed such close coordination. The complicated conditions of modern battle make coordination even more essential to success.

Air Superiority. Local air superiority is essential for success. Fixed-wing aircraft isolate the battlefield and provide continual air defense cover. Air defense systems need cross-country and adverse weather capability.

Air Support. Helicopter support is an integral part of the employment plan. Helicopters move with the maneuver element to provide reconnaissance, command and control, fire support, and lift for air assault and logistic support. Heavy tactical transport aircraft airdrop and land supplies, provide medical evacuation, and airdrop supporting elements. Elements of the maneuver force seize the airfields necessary to land these aircraft. In World War II, aviation formations assigned to support the mobile groups were subordinate to the mobile group commander.⁴³ Such a relationship simplifies control and ensures positive coordination.

Command and Control. Command and control of deep operations is difficult. Secure, long-range, and preferably electronic countermeasure-proof communications are necessary for higher headquarters to control their deep maneuver elements. Personal contact using helicopters or light aircraft provide positive control. Also, airborne command posts facilitate control.

World War II mobile groups used a three-layer command posts (CP) system. Control

alternated between CPs during movement; the forward CP was in control while the main and rear CPs relocated, the main CP was in control while the forward and rear CPs relocated, and so on. When radios proved to be unreliable, Soviet commanders used mobile means such as small communication planes as a CP. Commanders issued only short orders by radio and liaison officers carried duplicate messages to the receiving unit.

Task-Organization. The OMG is a concept for operational employment, not necessarily a formation. An OMG is normally task-organized to suit the mission. Normal reinforcement includes airborne and/or heliborne assault forces, aviation, air defense artillery, engineers, and additional logistics support.

Fire Support. Dependable fire support is crucial to the success of deep maneuver forces. Deep maneuver units have their own organic artillery and receive support by air, rocket, and missile forces. Organic artillery should be mobile, i.e., self-propelled or lightweight and air transportable. Close air support provides most of the fire support needed. Organic and supporting elements provide electronic warfare fires.

Integrated Fires In Depth. Warsaw Pact literature stresses the coordination and integration of all ground and aerial fire support systems.⁴⁴ It also stresses the close coordination of all fires in the deep area with the movements of deep maneuver elements. Timely suppression also requires integration of supporting fires to maneuver elements.

Combat Weight. The OMG normally consists of about 20 percent of the main force. To be successful, the deep maneuver element must be too large to ignore, yet small enough to maneuver quickly and remain supportable.

Bypass Major Strongpoints. Deep maneuver elements generally use raiding tactics and avoid decisive combat with large forces and strongpoints. Soviet experience in World

War II shows that by hesitating, the element of surprise is lost and provides the enemy time to consolidate.

Night Operations. The Soviets also give special attention to operations at night to reduce the vulnerability of deep maneuver forces. Darkness makes it difficult to determine where the unit is and what its direction of march is. It also makes it more difficult to organize countermeasures. The effect of surprise outweighs the increased command and control problems. Therefore, the Soviets commit deep maneuver elements at night. For example, mobile groups in World War II generally operated at night and stopped to refit and resupply during the day.

Logistics. Logistics support for deep maneuver elements is very difficult. Maneuver elements have a limited mobile logistics capability. Also, the link to the main force is tenuous and may be lost. History provides some possible solutions. First, exploitation forces consume less than those forces engaged in fighting organized defenses. Soviet analysis of operations in 1944 and 1945 shows that units advancing at sixteen to forty-five kilometers a day used only one-third of the fuel and one-sixth of the ammunition of units advancing at 4.5 to thirteen kilometers per day.⁴⁵ Second, Soviet experience in Manchuria shows that air transport may successfully provide the necessary logistics support.

Repair and recovery provides a difficult problem. A strong, task-organized repair and recovery unit helps to alleviate this problem. The largest problem is the lack of repair parts. Mobile group experiences from World War II show that 40 to 50 percent of the parts used to repair equipment came from damaged equipment that was itself beyond repair.⁴⁶

Conclusion

Resurrecting a doctrine that was fifty years old provided the solution of the problem

facing Soviet commanders in the 1970s and 1980s. Considering the geographic and political realities of the Soviet Union, and their proclivity for the operational art and maneuver, it should not be surprising that they should turn to the past for answers. Therefore, Soviet deep operations, theory as manifested in the 1980s, was not revolutionary. As David Glantz writes, "In a sense, it represents a full maturation of the concepts Tukhachevsky espoused when he defined deep battle in 1936. "⁴⁷

CHAPTER 3

SOVIET FAR EAST CAMPAIGN, MANCHURIA, AUGUST 1945

Introduction

During the last hours of 8 August 1945, the Soviet Foreign Minister presented the Japanese Ambassador in Moscow a formal declaration of war. Shortly after midnight, Soviet troops launched a massive, combined-arms, joint and combined offensive against Japanese forces in Manchuria. Thus began the last large-scale campaign of World War II. Despite being one of the least-known campaigns of the War in the West, it has been immensely important to the Soviets.

After the Kursk offensive during the summer of 1943, Soviet operational techniques matured. In late 1943, 1944, and 1945, operations became large, combined-arms events characterized by maneuver deep into the German rear. The Soviets had achieved Tukhachevsky's vision; deep operations on an operational level had become a reality. David Glantz notes:

In Manchuria, the theories developed in Europe would be put to the test in a region whose geographical features would challenge the most capable planner, and under time constraints that would call for the greatest application of imagination and initiative.¹

The Manchurian Campaign demonstrated the aggressive use of maneuver and deep operations on a massive scale. Accordingly, it has had great implications for the post-war era of Soviet military art. From an operational perspective, the complexity, size, speed, depth,

and remarkable success of this campaign make it well worthy of study. For the student of deep operations, it represents the state-of-the-art deep operations of World War II and provides many useful lessons that the student can apply today.

Setting

By 1945, the war in Europe had almost reached its climax, and the stranglehold on Japan had tightened. As the prospect of victory over Germany became certain, Churchill and Truman pressed Stalin to open another front against Japan. Encouraged by the Allied appeals, and wishing to secure the Soviet position in the Far East, Stalin directed that planning begin on an operation to seize Manchuria from Japan. By March, planning for a campaign in Manchuria was in full progress.²

Because of its mineral wealth, the Japanese considered possession of Manchuria to be critical to the survival of the Empire. By 1941, the Japanese had built up an army (the Kwantung Army) of over one million men in Manchuria. Intelligence estimated this Army to be the most powerful army in the Japanese Empire. The Pacific War, however, had eroded Japanese forces in Manchuria in both strength and quality, as the Japanese had removed assets there for other theaters. On the eve of the Soviet attack into Manchuria, Japanese strength in Manchuria was approximately 1.2 million men.³

Soviet Situation. The Soviet General Staff correctly determined and achieved a strategic design fitting Joseph Stalin's concept of war against Japan. Stalin had assigned the highest priority to the campaign's rapid completion. Because war with Japan was very unpopular with the Russian people, Stalin wanted to avoid the political risks of a war of attrition. Therefore, any campaign against the Japanese had to be designed to force a quick

and unconditional surrender. Also, Stalin wanted to achieve political and territorial gains,⁴ specifically to capture Manchuria, Korea (to the 38th parallel), Southern Sakhalin Island, and the Kurile Islands.

To achieve these objectives, the Soviet General Staff considered four strategic options. The Staff rejected one option, the invasion of the Japanese homelands, because they expected it to be very difficult and costly. Another possibility was to strike the Japanese forces in northern China. The Staff also rejected this because of the dispersion of Japanese forces and the limited and difficult approach routes. They also rejected a third alternative, the seizure of Sakhalin Island and the Kurile Islands, because it might not achieve real victory. However, they included the seizure of these islands as part of the final plan.⁵

The General Staff believed a final option, striking Japanese forces in Manchuria, to be the only alternative that could achieve Stalin's goal of rapid completion. They considered the Japanese forces in Manchuria to be the center of gravity of Japan. Soviet military planners reasoned that the destruction of these forces would deny the Japanese homeland of their greatest strength and would quickly cause the unconditional surrender of Japan.⁶

Soviet military planners concluded that the strategy to defeat Japan in Manchuria had a two part objective. First, they had to isolate the Kwantung Army before Japan could evacuate or reinforce it, either from the Japanese homelands or northern China.⁷ Second, they had to defeat and disarm all Japanese forces in Manchuria and Korea. The operational strategy chosen to achieve these objectives was one of encirclement. The central feature was one of deep operations.

One design of the operational plan was to achieve decisive operational strength throughout the theater. From May to July of 1945, the Soviets moved four armies, many

specialized units, all of their equipment, and a large amount of supporting material across the Asian continent.⁸ Most of these forces went to the Transbaikal Front. This immense effort doubled the Soviet forces in the theater to over eighty divisions and over 1.5 million men. It also gave the Soviets the positional advantage before the campaign began.

Japanese Situation. In August 1945, Japanese forces in Manchuria numbered thirty-one infantry divisions, nine infantry brigades, two tank brigades, and one special purpose brigade. These forces consisted of three army groups, one separate combined army, one air army, and a naval flotilla. Added to this was the Manchukuo army of eight infantry and seven cavalry divisions. In total, Japanese forces numbered over 1.2 million men.⁹

Despite this numerical strength, these units lacked quality. The Japanese had transferred many veteran soldiers and commanders to the Pacific theater before the summer of 1945. This had led the Japanese High Command to develop a defense in depth to delay Soviet forces until they could establish a final defensive position in a redoubt in the Tunghua area. The army groups received the final version of this plan in June 1945.¹⁰

The plan called for one-third of the Japanese force to deploy along the borders. The Japanese deployed the remaining two-thirds in operational depth to create a series of defensive lines. Figures 4 through 7 show the general position of Japanese units. The Japanese expected to use the terrain and long distances to attrit the Soviets. By the time the Japanese reached the redoubt, they expected the Soviets to be exhausted. This would allow the Japanese to check the Soviet advance and maybe even counterattack. Figures 8 through 10 show the general defensive plan.

Any analysis of this plan should consider two important points. First, the Japanese had to redeploy and construct fortifications to carry out this plan. This did not start until

midsummer of 1945. They had not completed either the redeployment or the construction of fortifications when the Soviet offensive began. Second, on 6 August 1945, the United States dropped the first atomic bomb on Hiroshima. The second atomic bomb exploded on Nagasaki on the first day of the offensive, 9 August 1945. Both events greatly affected the outcome of the battle.

The Plan

The campaign plan the General Staff designed to fulfill the operational strategy was simple, yet bold. The Transbaikal Front was to make the main attack, driving from Mongolia through Manchuria and preventing Japanese reinforcement from northern China. This attack would maneuver into the Japanese rear. The 1st Far Eastern Front was the primary supporting attack. It was to outflank the Japanese in the east, prevent reinforcement from Japan, and attack the major command and control centers and transportation nodes located at Harbin and Kirin. After these two *Fronts* had converged in the Mukden, Changchun, Harbin, and Kirin areas of south central Manchuria, they would advance together to crush the final Japanese resistance and capture Port Arthur, an important naval base in the south. The 2nd Far Eastern Front was to fix Japanese forces in the north. The Soviet Pacific Fleet was to conduct operations in Korea, the Kurile Islands, and Sakhalin Island and to prevent Japanese landings in the theater. Figure 11 provides a graphic depiction of the plan.

The Soviet planners then developed an operation plan based upon deception and surprise that depended on the Soviets' advantages of mobility, firepower, and combat skill. Figure 12 lists some problems and solutions of the operation plan and displays the thoroughness of the Soviet planners. Although execution of the plan proved to be complicated, it was remarkably successful. Soviet planners believed it would take twenty to

thirty days to defeat the Japanese. The Soviets actually overwhelmed the Kwantung Army in six days, and the Japanese surrendered on the tenth day.¹¹ By the end of August 1945, the Soviet Army had occupied Manchuria, part of northern China, Sakhalin Island, the Kurile Islands, and the northern portion of Korea. The Soviets accomplished this amazing victory with relatively light casualties.¹²

The Offensive

Ten minutes after midnight on 9 August 1945, the lead elements of Marshall Malinovsky's Transbaikal Front crossed the border and attacked into Manchuria. Malinovsky's operational plan included three separate attacks in three major axes focusing on Kalgan, Mukden, and Changchun. The 6th Guards Tank Army, acting as a mobile group, led the attack followed by the 53rd Army. Meanwhile, two combined arms armies, the 17th and 39th, conducted the main attack of the Front toward Changchun. The 36th Army conducted a supporting attack to fix Japanese forces in place.

Moving rapidly, the 6th Guards Tank Army had reached the Greater Kingan Mountains by the second day and had crossed the mountain range by the end of the third day, a distance of over 350 kilometers.¹³ The progress of the 6th Guards Tank Army continued to be spectacular. On 21 August, elements of the 6th Guards Tank Army reached both Changchun and Mukden, two days after Soviet airborne units landed at both locations. Meanwhile, the other attacking armies made greater progress than expected. The Transbaikal Front achieved its objectives well ahead of schedule. The 6th Guards Tank Army then received a subsequent mission of securing Port Arthur alone.¹⁴

Simultaneously, Marshal Meretskov's 1st Far Eastern Front launched his attack. The

trace of Meretskov's Front ran from the Ussuri River in the north to the Sea of Japan just east of Changchun and was heavily fortified. The Japanese had expected the main attack to come from the east and had created strong defensive positions along this front. The Soviets' tasks on this front was to penetrate the border regions quickly, bypass and isolate frontier fortifications, and drive deeply into eastern Manchuria. The goal was to preempt the establishment of a defense west of the border.

The 1st Far Eastern Front, advancing in violent thunderstorms at night, made slower progress than expected. However, by nightfall on 9 August, the 5th Army had torn a thirty-five kilometer hole in the Japanese defensive lines and had advanced 16 kilometers into the Japanese rear area. On the night of 9 August, Marshal Meretskov reassessed the situation. The 25th Army area promised the best chance for successful exploitation in the Front's zone. He reinforced the 25th Army with two additional corps and indicated that he would commit the Front mobile group, the 10th Mechanized Corps, into that zone.

By noon of 12 August, the 17th and 30th Rifle Corps of the 25th Army had achieved a breakthrough. Marshall Meretskov then ordered the 10th Mechanized Corps to exploit through the 25th Army zone to Wangching and beyond. With the other forces of the 1st Far Eastern Front fighting heavy resistance from the Japanese, the 25th continued to exploit their attack. Japanese forces in the Tumen-Yenchi area faced envelopment by the 25th Army by the night of 17 August. Meanwhile, the 10th Mechanized Corps moved sixty kilometers from Taipingling Pass and secured the critical rail and road junction at Tahsingkou. The 25th Army consolidated its hold on northeastern Korea on 18 August while the remainder of the Front made progress elsewhere. Also on 18 August, Meretskov sent the 10th Mechanized Corps westward to its objectives at Tunhua and Kirin and to capture key rail junctions along

the way. Having arrived at Tunhua on the evening of 19 August, the 10th Mechanized Corps and units of the 88th Rifle Corps moved south into Korea. They reached the 38th parallel by the end of August.

General Purkayev's 2nd Far Eastern Front experienced the most bitter fighting in Manchuria. The 15th Army conducted the main attack in the center. This Army had to cross a swollen river, overcome fortified positions at Hsingshanchen and Fuchin, and advance to Chiamussu, Sansing, and Harbin to join up with elements of the 1st Far Eastern Front. The 2nd Red Banner Army conducted a supporting attack west of the 15th Army through the fortified regions at Aihun and Sunwo and advanced to Harbin. In the east, the 5th Separate Rifle Corps attacked the Jaoho fortification and continued to Paoching and Poli, uniting there with the 1st Far Eastern Front's 35th Army. General Purkayev's 16th Army conducted operations on Sakhalin Island.

The attacks by the 1st and 2nd Far Eastern *Fronts* worked well with the audacious maneuver of the Transbaikal Front. These attacks forced the Japanese to focus their attention to the north and east. This allowed the Transbaikal Front to maneuver deep into the Japanese rear, causing massive chaos and disorganization in the Japanese defense and preventing the Japanese Imperial Command from consolidating their forces.

The rapid Soviet victory should not be denigrated. The argument that the Japanese defeat reflected the low quality of troops and poor morale of the Japanese forces is unfounded. Those Japanese units engaged in battle fought fiercely.¹⁵ Rather, the degree of surprise and the synergistic effect of the deep operations which the Soviets achieved accelerated the Japanese defeat.

Analysis of the Offensive

Soviet forces operated on a front of over 4,400 kilometers and to depths of 950 kilometers.¹⁶ Every type of terrain imaginable--deserts, mountains, swamps, lakes, and rivers--had to be traversed, many by the same unit. Soviet accounts depict this campaign as a commander's nightmare.¹⁷ Despite the many difficult or seemingly impossible problems that had to be surmounted, the command and control system established by the Soviet General Staff ensured a successful campaign.

The scope of such a large operation was too great for the coordinating staff initially responsible for the Far East theater. The standard process of assigning a Supreme High Command, or *STAVKA*, representative to oversee the operation also proved inadequate. *STAVKA* overcame this difficulty by creating a unified command similar in principle to our geographic combatant commands. On 30 July 1945, the Soviets established the Far East High Command with Marshall A. M. Vasilevsky as the Commander-in-Chief (CinC). Marshall Vasilevsky assumed responsibility for all land, sea, and air operations in the theater. Under his command, the CinC had three front or army group commanders who had the typical command structure of armies, corps, divisions, and brigades. The CinC also assigned a separate commander of the Pacific Fleet as coequal to the front commanders. To provide the personnel and experience for these new commands, *STAVKA* shifted experienced headquarters staffs from Europe. The Chief Marshal of the Soviet Air Forces, the Commander-in-Chief of the Soviet Navy, and the Deputy Rear Chief (the theater logistics commander) were key members of the CinC's staff.

Marshall Vasilevsky further realized that the scale and speed of the operation would be too difficult for the standard Soviet practice of centralized command and control to be

effective. The amount of frontage and terrain forced division and larger units to operate independently. To ensure full control and guarantee continued action, Marshall Vasilevsky increased the authority of all levels of command. He required that command posts stay close to the advancing units. Also, precise orders that clearly stated the commander's intent received special importance.¹⁸ These measures were essential to allow unit commanders to use the initiative necessary to ensure success.

The war against Germany produced many experienced and competent commanders at all levels. *STAVKA* insured that the Soviets selected the best of these leaders to organize and command Soviet forces. The stunning result of the Manchurian Campaign attests to the Soviet commanders' audacious leadership. One analysis of the operation describes Soviet military leaders as taking great risks, planning bold operations, and executing their plans with abandon.¹⁹ Many commanders in this campaign would later rise to high positions in the Soviet military. Marshall Vasilevsky had been the Chief of General Staff and a member of *STAVKA* before the campaign and became the first Defense Minister of the Armed Forces. Marshall Malinovsky, the commander of the main attack, became the Defense Minister in 1957.

In preparation for this campaign, the Soviets conducted an immense operational movement of men and equipment from Europe to the Manchurian theater, a distance of over ten thousand kilometers. In total, they moved almost 750,000 men and 136,000 carloads of equipment over a single line of communication, the Trans-Siberian Railway,²⁰ requiring twenty-two to thirty trains a day during this period.²¹ Most of these forces went to the Transbaikal Front, necessitating a motorized march, from the railway to the assembly area in Mongolia, of up to 750 miles, mainly over desert. The infantry units had to march the last

150 to three hundred miles in temperatures of 112 degrees Fahrenheit.²² Furthermore, they relocated over thirty divisions within the theater.²³ This immense effort doubled the Soviet forces in the theater and gave them a positional advantage.

Another important aspect of this movement was that the Soviets selected the units transferred from Europe based on strength and specialized experience or capabilities. This allowed the Soviets to ensure they had decisive force at the appropriate location. For example, they selected the 6th Guards Tank Army to be the focus of effort in the main attack (the Transbaikal Front). The plan required that this army attack through the Grand Khingan Mountains of western Manchuria. Having just fought their way through the Carpathian Mountains in Europe, the 6th Guards Tank Army had successfully proven their proficiency in mountainous terrain.

This large operational movement is even more remarkable because the Soviets designed their plan to be a strategic surprise. To achieve strategic surprise, they conducted a very systematic and huge deception effort that made use of both military and diplomatic means. They succeeded in masking their intent, as well as the time, direction, and strength of the attack. Stalin was able to convince the Japanese that he was prepared to negotiate terms for an end to the war.²⁴ The Soviets established routine defensive activity well before the attack and used false movements and simulated concentration of forces to deceive the Japanese of their expected place of attack. The Japanese thought the Soviet plan to attack over large stretches of desert and impenetrable mountains in the monsoon season to be impossible.

Operation security (OPSEC) was an essential part of the Soviet deception effort. As a consequence, they restricted planning to only the senior commanders at each level of command; only four people had knowledge of the entire plan for any given unit. The Soviets

also initiated extensive security measures to cover the movement of units and key commanders into the theater. The CinC strictly limited reconnaissance efforts and forward deployments before the attack. Restricting deployment along the front to night movement and locating assembly areas twenty to eighty kilometers to the rear of the border were an essential part of the OPSEC plan.²⁵

The Soviet deception efforts resulted in strategic, operational, and tactical surprise. The Japanese believed the Soviets could not conduct major operations until after September 1945. The Soviet attack caught Japanese forces regrouping to new defensive positions, totally unprepared for the Soviet offensive.

The use of maneuver by the Soviets enhanced the surprise their deception caused. Over 41 percent of the Soviet forces conducted the main attack along the Transbaikal Front, which faced the weakest Japanese forces.²⁶ Designed to envelop the entire Kwantung Army, the Soviets desired this Front to maneuver into the Japanese rear, attack key command centers and transportation nodes, and prevent reinforcement from northern China. Retreating Japanese units found themselves facing the Soviet main attack. The Soviets designed the main supporting attack, the 1st Far Eastern Front, to envelop Japanese forces from the East and to attack key command centers and transportation nodes.

All levels down to divisions relied on maneuver, particularly in the Transbaikal Front. Powerful, fast-moving, combined-arms advanced detachments outflanked Japanese defensive positions and operated deep in the Japanese rear seeking command and control sites. They bypassed, isolated, and later reduced Japanese strongpoints. This enabled the main fighting forces to continue to move and not get bogged down into set-piece battles. Soviet units achieved rapid momentum, which made Japanese efforts to move into defensive positions

futile.

The Soviets used both mobile groups and *desants* to great effect in this campaign. The two front mobile groups, the 6th Guards Tank Army and the 10th Mechanized Corps, overcame seemingly overwhelming odds. The mobile group offensives reached depths of six hundred to eight hundred kilometers during this campaign, averaging daily rates of advance close to ninety kilometers per day.²⁷ Assisted by airborne assaults at Changchun, Mukden, Shenyang, and Port Arthur, these mobile groups raced ahead to attack key C³ sites and transportation centers. Also, on 18 August, Marshall Vasilevsky ordered all Soviet units in Manchuria, on all *fronts*, to secure major population centers with mobile units (groups) created from each major formation. Small amphibious operations also secured port facilities.

Logistics support proved to be the most serious problem of the campaign. Soviet memoirs depict acute shortages of fuel, water, and food.²⁸ Challenged by terrain, weather, speed, and distance, Soviet planners had expected logistics to be a problem and had taken comprehensive measures accordingly. Planners had established a theater rear area commander charged with logistics support under Colonel-General Vinogradov, who was given wide latitude and considerable authority. This proved to be vital to the success of the campaign. Soviet logisticians developed the theater resource and production base and stockpiled large amounts of supplies. Also, they formed special units to supply key units. However, even these efforts often proved inadequate.

The Transbaikal Front experienced the largest and most critical logistics problems. Since there were not enough water sources in the desert to support the Front, a large engineer effort, which drilled over six hundred new wells from 10 June to 8 August, developed water sources along the route of march. However, there were no wells in the first 125 miles of

enemy territory, and forces used every available container to carry water, to include filling rubber boats. Additionally, they had to carry all fuel, parts, and construction materials over long distances. Every tank and self-propelled chassis carried logs, brought from Siberia, and construction material.²⁹

Logistics planners misjudged the amount of Del and transport needed to support the Front. A lack of fuel stalled the 6th Guards Tank Army, the focus of main effort, for two days because they had to be supplied over a roadless desert, a mountain range, and a rainy plain. The Soviets diverted air transports and bombers from other missions to supply the Army with enough fuel to allow the attack to continue.

Logistics was a major concern during the Soviet campaign. Japanese forces were aware that a lack of fuel had stranded many Soviet units, such as the 6th Guards Tank Army. However, the Japanese were unable to counterattack because of the effectiveness of the Soviet attack throughout the theater. Generally, the Soviet logistics effort was a success. This is due in large part to the innovation of the rear area command, the immense buildup of supplies, and the short duration of the campaign.

Intelligence was another area of concern. The Soviet General Staff had little information on Japanese forces in Manchuria. The information that was available was unreliable, and the available maps were inaccurate. Again, it was the Transbaikal Front which suffered most from the critical lack of intelligence. The designed intent to surprise the Japanese limited intelligence operations, both covert and overt. This intent also limited aerial reconnaissance to the border. This lack of information caused the General Staff to overestimate the strength and number of Japanese forces. This overestimation worked in the Soviets' favor; the overwhelming force committed along all *fronts* helped ensure rapid

victory.

Once the attack started, there was a large effort to gain intelligence on Japanese forces. The Soviets devoted over 30 percent of all air sorties initially to aerial reconnaissance from thirty to 625 miles beyond advancing forces.³⁰ Also, each corps had a reinforced motorcycle battalion to perform reconnaissance out to fifty miles in front of the main forces.³¹

The Soviets used operational fires, primarily aerial bombardment, very effectively. However, they used naval forces to good effect on the Manchurian coastline and in the Sea of Japan. As with aerial reconnaissance, the desire to surprise the Japanese meant that they could make no aerial or naval attacks before the start of ground operations. The primary mission of the Air Force initially was to concentrate on command centers, transportation nodes, supply depots, and fixed fortifications.³² Destroying command centers and isolating the battlefield received priority. The use of air assets to interdict rail movements proved to be especially important to the Transbaikal Front. The bombardment of rail lines of communication prevented Japanese efforts to regroup, reinforce, and counterattack.³³ However, the Soviets experienced problems forward basing the Transbaikal Front aircraft that could have been decisive against a more capable enemy.

As noted in the discussion of deception and operational security, the Soviet General Staff went to great effort to protect their forces. A few significant examples include the following: 1) National and theater air defense forces, air units, and tank units guarded transports, lines of communication, and airfields during the buildup. 2) Defensive operations had been planned in case of attack. 3) Each front had its own air defense force consisting of three fighter divisions, several antiaircraft artillery corps and regiments, and armored trains equipped with antiair artillery.³⁴ Also, armies, corps, and divisions had their own air defense

forces. 4) Once ground operations began, the Air Force quickly gained air supremacy and supported ground and naval forces extensively. 5) All Soviet forces were inoculated against plague and other diseases because of the widespread diseases in Manchuria and northern China.

Synchronization was a critical aspect of this campaign. A few important examples are as follows:

1) The main feature of this campaign is the employment of integrated combined-arms. Ground, sea, and air forces were mutually supporting. Requirements determined specific force adjustments. The net effect was an integrated, responsive, all-purpose military. This close coordination helped ensure success.

2) Soviet forces attacked on every possible axis simultaneously on all *fronts*. They synchronized these movements with aerial reconnaissance, deep interdiction strikes, and airborne assaults and amphibious landings on key objectives in the enemy center, rear, and flanks. This pinned down Japanese forces along the entire length of the front. Japanese commanders were unable to determine which effort was the main attack. The use of high speed advances and maneuver to bypass and isolate Japanese defenses left Japanese commanders confused and off-balance. Moreover, Japanese commanders were unable to regroup, retaliate, or counterattack effectively because of the physical separation.

Despite the general success of the campaign, the Soviets experienced several problems. A major source of problems was the Soviet commander's decision to attack over seemingly impassible terrain on many axes. Not all units could overcome the terrain obstacles. Some units failed completely while others became spread out or overextended. Occasionally, Soviet commanders were able to redirect other assets, as with the 6th Guards

Tank Army, and ensure success. But in most cases, Japanese forces were unable to react and take advantage of the situation. The combined, synchronized effect of the Soviet effort denied the Japanese commanders the ability to take decisive action.

Conclusion

The Manchurian Campaign remains a subject of intensive study by Soviet military professionals. They view this campaign as the successful application of Tukhachevsky's deep operations theory. In particular, the success of the 6th Guards Tank Army, the primary operational level mobile group, has been promoted as a useful example for training commanders and staffs today. The 6th Guards Tank Army is clearly the predecessor of the operational maneuver group of the 1980s.

Much of modern Soviet military art can be attributed to this campaign. Soviet military leaders have characterized the Manchurian Campaign as an instructive model for modern offensive operations. It is considered the main precedent for strategically decisive, offensive operations.³⁵ It is a campaign worthy of study by American military professionals as well.

CHAPTER 4

ANALYSIS AND EVALUATION

U.S. deep operations doctrine is not as prescriptive as its Soviet counterpart. U.S. doctrine mainly focuses on the use of air, missiles, electronic warfare, and long range artillery in the pursuit of operational objectives. Firepower and maneuver are necessary for success. Airborne, air assault, aviation, and high-speed armor forces provide the capability to strike deep. However, U.S. doctrine has no concept to include an OMG-like or *desant* model along Soviet lines. Such a concept could benefit combatant commanders by providing them a way to rapidly shift the focus of the battle to the enemy's rear and prevent the enemy the freedom of action necessary to wage a successful campaign.

Some Soviet experts question the Soviets ability to successfully employ OMG and *desant* forces.¹ The level of planning and coordination required is daunting. Command and control of such complex deep operations is difficult, and mobility and logistics problems are difficult to overcome. Despite the difficulties, such operations are possible. Desert Storm is an example of the ability to use ground maneuver forces to achieve operational aims. Initiatives which address the problems coalition forces faced in Desert Storm, and the continued modernization of U.S. forces, may make the OMG and *desant* concept feasible. What, then, is the feasibility of adapting the concepts of Soviet deep operations theory to future Marine Corps operations in joint warfare?

A review of Soviet theory identifies many requirements for successful deep operations. For this review, the deep maneuver option considered is an OMG style variant of amphibious *desant*. To be credible, an amphibious *desant* needs to possess the combat worth

to achieve operational results; the force must be large enough to present a credible threat to the enemy commander. According to Richard Simpkin, combat worth is based on momentum.² The *desant* force requires the firepower, protection, and mobility that allow independent operations, yet remain small enough to be supportable.³

Once inserted, the amphibious force should have the mobility and firepower to exploit the enemy's vulnerabilities and move rapidly toward its objective. The U.S. does not have the amphibious lift to land and support a one division Marine Expeditionary Force (MEF) capable of conducting an OMG-style mission. Nor does a MEF have the mobility necessary to accomplish this task. A brigade-size force, however, can be task-organized to provide the firepower, mobility, and sustainability needed to accomplish this mission. Brigades are also well suited to an environment requiring rapid, flexible action.

Soviet operational maneuver units are combined-arms, air-ground teams. A typical OMG structure incorporates armor, mechanized infantry, heliborne and airborne infantry, and aviation under one commander. Marine Air-Ground Task Forces (MAGTFs) provide such a structure that is experienced at fighting as combined-arms, air-ground teams. Marine ground elements fight as task-organized units consisting of mechanized infantry, heliborne infantry, and armor. Aviation, to include fixed-wing aircraft and attack helicopters, is an integral element of any MAGTF. The problems of trying to meld elements of various organizations and services into a fighting unit may be minimized if a MAGTF forms the nucleus of an OMG.

Despite this capability, the Marine Corps must address some material deficiencies for it to function as an amphibious OMG. The primary deficiencies are the lack of mobility, artillery, and airlift. The current fleet of AAVs does not provide the firepower or protected

mobility needed for an OMG. The introduction of the AAAV by the year 2010 will solve this problem. The AAAV provides light armor mobility lethal enough to kill other light armor and infantry fighting vehicles and is agile enough to outpace the current M1A1 tank.

The current fleet of medium-lift transport helicopters does not possess the lift capability, range, or reliability to support an air assault *desant*. The current troop-lift helicopter, the CH-46, is an old airframe with limited capabilities. The V-22 tiltrotor aircraft provides a quantum leap in medium-lift transport capability. The overall lift capacity increases considerably. But what is more important, the twofold increase in speed and nearly fourfold increase in range significantly improves the utility and survivability of an air assault *desant*.

Nor does the Marine Corps possess the mobile artillery to support such a high-speed attack. The current M198, 155mm howitzer is too heavy to be truly helo-transportable or capable of maintaining the high rate of advance required by such high tempo operations. Marine aviation, to include both fixed and rotary wing aircraft, will partially offset the lack of mobile artillery. However, the MAGTF needs the all-weather protection provided by artillery. The obvious solution is the Multiple Launch Rocket System (MLRS). A U.S. Army MLRS battery, attached to a Marine brigade, would provide the mobile, all-weather fire support needed by an OMG. Land and seabased ATACMS could provide additional fire support within their range.

The Soviets consider surprise, secrecy, and deception to be essential for deep operations. Surprise provides the initiative and freedom of action necessary for success. Surprise is an inherent capability of amphibious operations. Even if the enemy expects an amphibious operation, he does not know the time or place of the landing.

The determinant of achieving surprise is deception. The deception plan must seek to draw the enemy's attention to the wrong area, concealing the exact location of the OMG. Again, amphibious operations lend themselves to deception. An amphibious force equipped with LCACs, AAVs, and V-22s can threaten one thousand miles of coastline within a twenty-four hour period.⁴ Even if the enemy knows the location of the amphibious force, he cannot defend all the approaches along his coastline.

The concept of Over-the-Horizon (OTH) amphibious operations, "an assault launched from beyond the visible and radar horizon--usually in excess of 25 miles,"⁵ strengthens the Marine Corps' capability to perform a *desant* mission. The OTH concept extends the philosophy of maneuver warfare to amphibious operations. Operational tempo is stressed as a means to seize the initiative, keep the enemy off balance, and shatter enemy cohesion. The goal is to create panic, paralyze his ability to respond, and impair his will to resist.

In the past, amphibious operations landed the assaulting forces at single points of entry. The OTH concept, however, envisions the surface assault force landing over multiple, widely-dispersed points of entry. These separate forces are normally battalion size units, but could be smaller.⁶ This dispersion increases the chance of surprise and the successful use of deception. An attack over multiple routes masks the intent of the operation and the main force objective, which will not be apparent until the force consolidates in the enemy rear. By this time, the enemy will face a dilemma that is difficult for him to overcome.

The OTH concept also directs that the assault forces move rapidly inland.⁷ This makes enemy prepared defenses immaterial. Rapid, deep penetration enhances survivability of the force by reducing exposure to indirect fire weapons and counterattack. Maneuver along multiple axes are also mutually enhancing. Success on one axis assists success on

another axis, while failure on one axis does not mean complete failure of the entire force.

Under the OTH concept, vertical assault forces attack along gaps deep into the enemy defenses. The vertical force will take a position that maximizes the capabilities of the amphibious force as a whole. This may be to seize critical LOCs, establish blocking positions, or strike enemy C⁴ or logistics sites. This, and the other principles of the OTH concept discussed above, mirrors the Soviet notion of OMG and *desant* employment.

High risk normally accompanies deep maneuver. Richard Simpkin disagrees with this notion.

The master of manoeuvre does not associate deep operations and high tempo with high risk. Risk there is, of course. But given good operational intelligence out to full depth, a sound yet flexible movement plan, and logistic assurance, a deep operation should entail no greater risk than a frontal attack does. In fact Tukhachevskii explicitly equates the two in this respect.⁸

The solution to reducing risk is obviously good intelligence and logistics. Maintaining a strong offensive and high tempo minimizes risk. The commander needs good intelligence throughout the depth of the operational area. The U.S. has intelligence gathering capabilities second-to-none. The biggest problem facing any deep maneuver force commander is the timely receipt of intelligence. The current effort to field the Joint Surveillance and Target Attack Radar System (JSTARS) with a direct link to the ground commander greatly enhances the real-time intelligence available to the deep force. Another asset that will prove invaluable to a Marine *desant* is the remotely piloted vehicle (RPV).

Logistics was the foundation for Tukhachevsky's deep operations. He believed deep operations depended upon logistics and stressed the idiocy of launching an operation unless the necessary logistics were in place.⁹ Logistics support, however, may be the most difficult problem to overcome. A strong mobile combat service support, tailored to overcome the

special demands of deep operations, is necessary. Of the various methods used to resupply the *desant*, air resupply by helicopters and tactical transport aircraft is the most viable. The successful exploitation of the C-130 Hercules aircraft's expeditionary capability to move supplies during Desert Storm demonstrates the potential utility of transport aircraft in deep operations. In mobile operations, fuel is the greatest concern. Marine KC-130s may be used to transport fuel for aviation and ground assets.

There are many concerns with command and control of an amphibious *desant*. First, command and control of this type of operation is very demanding. Coordination between the various deep attacks is vital to achieve the desired result. Control of the deep maneuver space requires procedures that have yet to be devised. This is complicated by the freedom of action that should be given to the maneuver force commander. He will receive the objective of his attack but the route should be his to decide. Based upon the intelligence he receives and the situation as it develops, the commander may choose the path of least resistance. This makes predetermined airspace and ground control measures almost unworkable.

Second, only mission-type orders can maintain effective control of the *desant* forces landing over dispersed beaches and operating along separate axes of advance. Such orders allow subordinate commanders to act freely to achieve their objective. The focal point is the commander's intent. Subordinate commanders' full understanding of their role in such a rapidly changing scenario is decisive.¹⁰

The principle area of concern deals with the relationship between the amphibious task force commander (CATF) and the landing force commander (CLF). Historically, the CATF is responsible for the operation and is vested with the command authority to ensure the success of the operation. The CLF is in a subordinate role until the amphibious operation is

terminated and control is passed ashore. For shallow amphibious operations, similar to those the U.S. has historically conducted, this relationship between the CATF and CLF is adequate. But an amphibious *desant* will require a different relationship. The depth, width, and speed of the landing will make it necessary for the CLF to be in control during the landing phase. Also, these same attributes will make it difficult to define a terminating point that will allow control to be passed ashore to the CLF.

The command relationships within the Naval Expeditionary Task Force (NETF) further clouds the issue of command authority and supported vice supporting commander. Should the CATF be in charge of the NETF or should the carrier battle group commander be in overall charge? Or should the next higher designated commander be in charge? The debate over this issue continues and is yet to be resolved for contemporary amphibious task force missions.

Who then should be in charge? Maneuver from the sea does not lend itself to the standard CATF/CLF relationship. Nor does the concept of an amphibious *desant*. Throughout the deep attack, the support of the Naval Expeditionary Task Force will be critical to the success of the mission. Should the CLF be in charge or is it sufficient that he is assured that the naval support will be in the proper place and time it is required? The idea of designating a supported and supporting commander may provide the solution. This may make it easier for the JFC or NETF commander to designate the focus of effort during the movement to the amphibious objective area and conduct of the amphibious operation. Whether the JFC, NETF commander, CATF, or CLF controls the *desant* should be dependent upon what considerations, be they naval or ground, are critical to achieving the operational objective.¹¹

Based upon the evaluation of Soviet deep operations theory and current Marine Corps capabilities, it is not possible for a MAGTF to conduct an OMG-style *desant* today. Joint and Marine Corps doctrine needs a refocus to develop the principles of deep operations more fully. With the fielding of AAV and V-22, the MAGTF will provide a potent force capable of performing an OMG-style *desant*. Conventional amphibious assault, however, retains operational if not strategic significance.

CHAPTER 5

CONCLUSION

The challenge is to identify and adopt a concept of warfighting consistent with our understanding of the nature and theory of war and the realities of the modern battlefield. What exactly does that require? It requires a concept of warfighting that will function effectively in an uncertain, chaotic, and fluid environment--in fact, one that will exploit these conditions to advantage. It requires a concept that, recognizing the time-competitive rhythm of war, generates and exploits superior tempo and velocity. It requires a concept that is consistently effective across the full spectrum of conflict, . . . It requires a concept which recognizes and exploits the fleeting opportunities which naturally occur in war. It requires a concept which takes into account the moral as well as the physical forces of war, because we have already concluded that moral forces form the greater part of war. It requires a concept with which we can succeed against a numerically superior foe, because we can no longer presume a numerical advantage. And, especially in expeditionary situations in which public support for military action may be tepid and short-lived, it requires a concept with which we can win quickly against a larger foe on his home soil, with minimal casualties and limited external support.¹

The challenge that faces us is to adopt a concept of deep operations similar to that envisioned by the Soviets in the late 1980s. This is not as radical as it may seem. British theory and German practice of the mid-20th century was the basis of U.S. offensive doctrine. Major General L. D. Holder, U.S. Army, co-author of the 1982 and 1986 versions of FM 100-5, writes that "it [Airland Battle] enlarged that idea by adding Marshal Mikhail N. Tukhachevsky's concept of simultaneous attacks in depth, the pattern that gave birth to the Army's deep operations."² Thus, the U.S. bases, in part, its current deep operations doctrine upon Soviet doctrine.

We must change our paradigm! Why? As the force reductions continue, we may no longer have the overwhelming force or combat power to quickly defeat our enemies using the

limited deep maneuver and attrition style of warfare that has been the hallmark of U.S. operations in the past. In the future, joint and combined commands can expect to be confronted by a superior enemy force initially, if not throughout the entire conflict.

The proliferation of high technology weapons in the third world countries most likely to be our foes in the future magnifies this problem. Nations with small, but modern, forces will have the resources that have high battlefield leverage. This advanced capability will negate the many advantages we gain by our high-tech weapons. It will also require maneuver forces to complete what coalition standoff weapons accomplished in Desert Storm.

U.S. military forces must also win any conflict quickly. The current political and economic environment demands that any future conflict be short; economically, the U.S. can little afford the opposite. As recent experience in Somalia suggests, public support is short-lived. I believe this will be the norm in all but extreme cases.

How, then, are we to win future conflicts? We must achieve the initiative early and hold it to the end. Historically, the outcome of battle does not depend upon numerical strength. It depends, instead, upon other factors. Most winners in past conflicts have won because they seized the initiative from the enemy. Most often, maneuver was important to seizing and holding the initiative.³

Operational battle in the future should seek to gain and hold the initiative. By exploiting our technological edge and training, we can seize the initiative and shorten the conflict. Extending the battlefield in depth and capitalizing on maneuver will be the formula to achieve the initiative. Current U.S. doctrine does not develop the full potential of deep operations. FM 100-5 mentions all the various options available for use in deep operations except amphibious operations. However, it needs to be more prescriptive.

What is needed is joint doctrine that emphasizes the full potential of deep operations to impact battle on an operational level; a doctrine that develops tactical success into operational success and the rapid defeat of the enemy. Deep operations create opportunities to seize the initiative. By presenting the enemy with a multitude of threats in his rear area, we can enhance the likelihood of success. Soviet deep operations doctrine provides the template upon which to base this joint doctrine. The Marine Corps' philosophy of maneuver warfare and the concept of over-the-horizon amphibious assault blends well with such a doctrine.

Is the extension of the battlefield in depth as envisioned by the Soviets possible? I believe that it is. The technology and equipment we have today will support deep operations. But new technology currently being developed will provide us with capabilities we only imagined possible in the past. Improvements currently being developed in C4 will allow the command and control, plus the intelligence link, necessary to conduct deep operations.

For the Marine Corps, the AAV and V-22 will provide a quantum leap in capabilities. Not only will amphibious forces have a true over-the-horizon capability, the AAV will provide light armor mobility lethal enough to kill other light armor and agile enough to outpace the current M1A1 tank. The speed, range, and payload capabilities of the V-22 will greatly increase the reach, flexibility, and supportability of Marine air assault *desants*.

Once adopted, U.S. forces can exploit a new dimension in operational maneuver. The challenge for future commanders is how to translate this deep operations theory to practical application at the operational level. A sophisticated approach to deep operations will be difficult to synchronize and execute. But the most difficult problem to overcome will be

logistical support. Promotion of this doctrine in future joint exercises will allow the concept of deep maneuver to be developed and perfected.

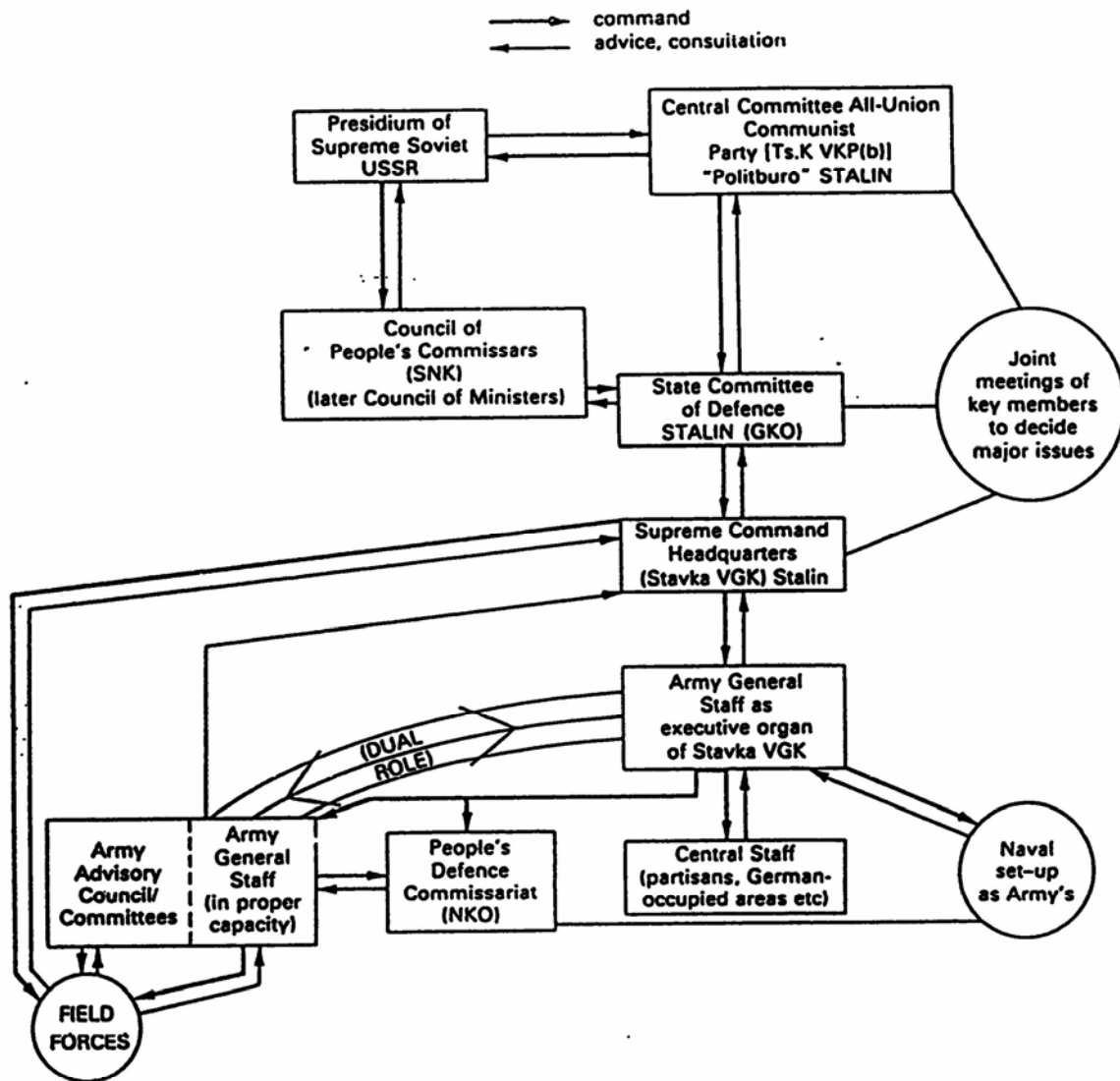


Figure 1. Soviet Organization in World War II.

Source: Richard E. Simpkin, Deep Battle: The Brainchild of Marshall Tukhachevskii (New York: Pergamon Press, 1987), p. 57.

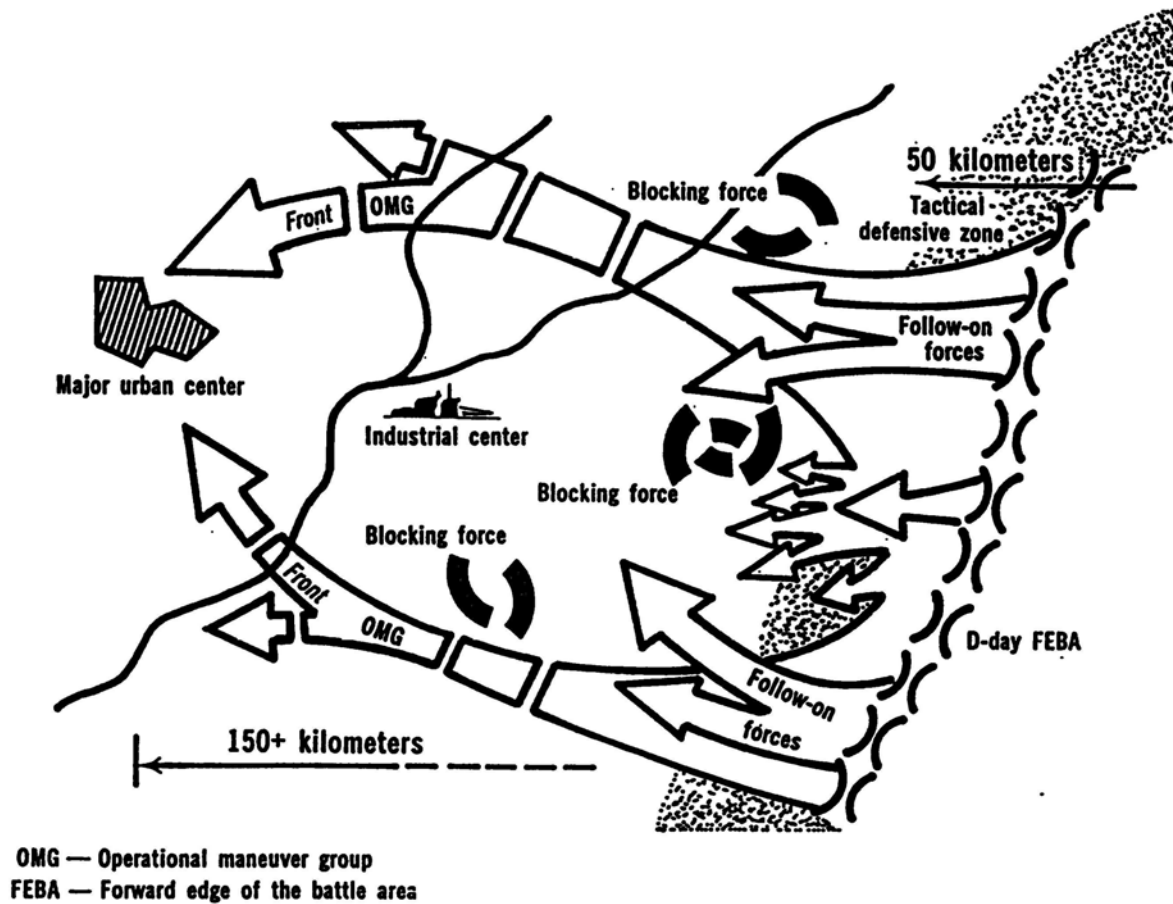


Figure 2. *Front-Subordinated Deep Operations*

Source: John G. Hines and Phillip A. Peterson, "The Soviet Conventional Offensive in Europe," *Military Review* 64 (April 1984), p. 15.

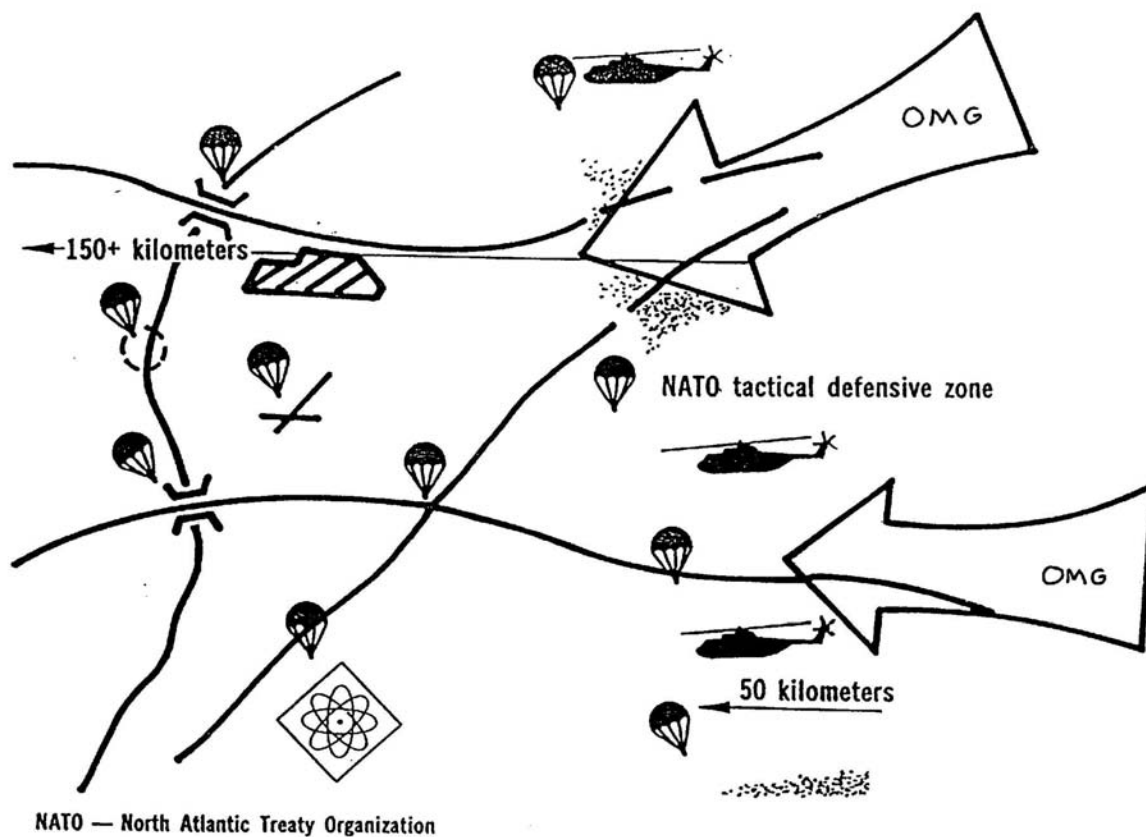


Figure 3. Operational/Tactical Air Assault

Source: John G. Hines and Phillip A. Peterson, "The Soviet Conventional Offensive in Europe," *Military Review* 64 (April 1984), p. 16.

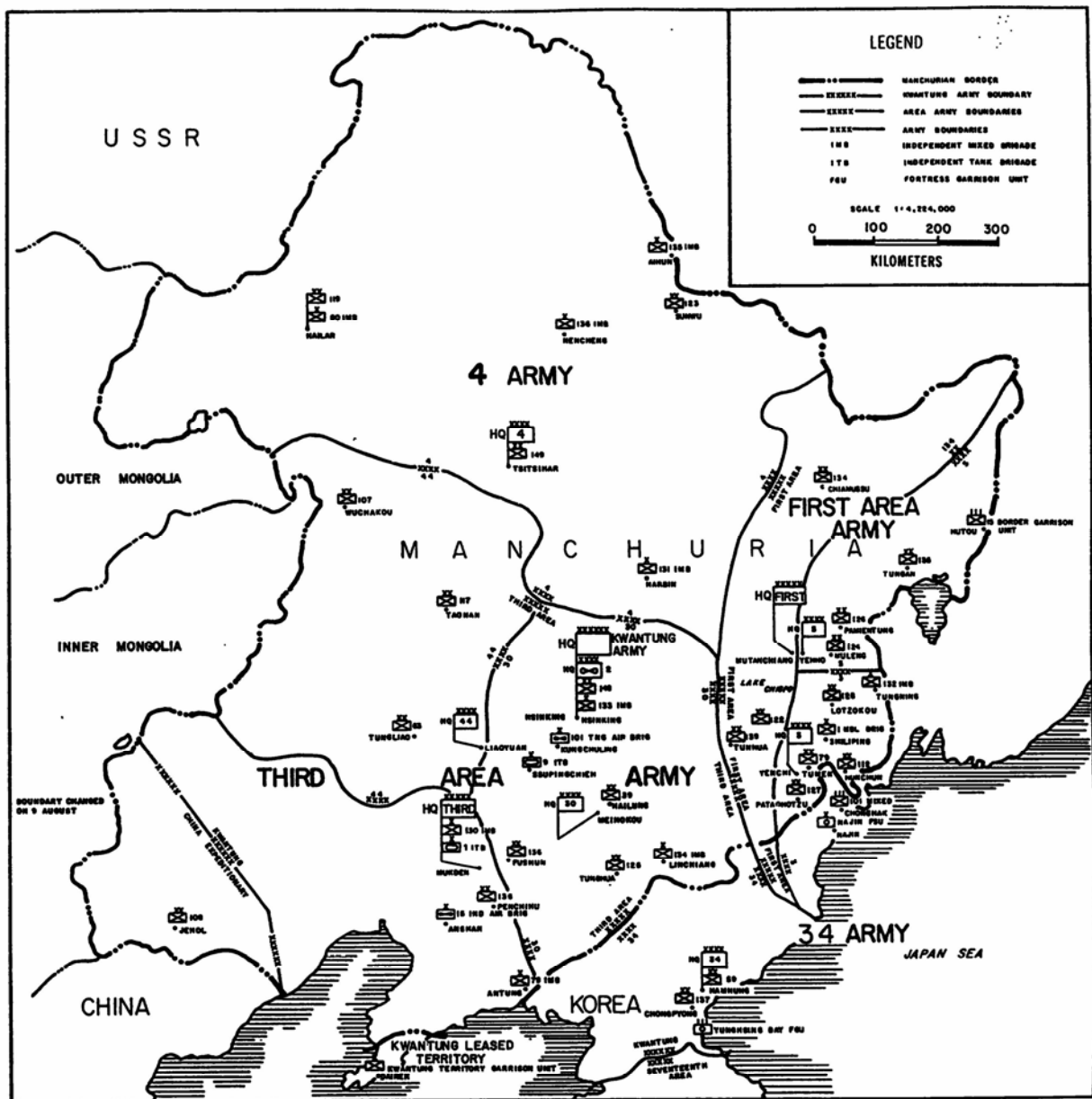


Figure 4. Kwantung Army Dispositions

Source: David M. Glantz, August Storm: The Soviet 1945 Strategic Offensive in Manchuria, Leavenworth Papers, no. 7 (Washington, DC: U.S. Government Printing Office, February 1983), p. 27.

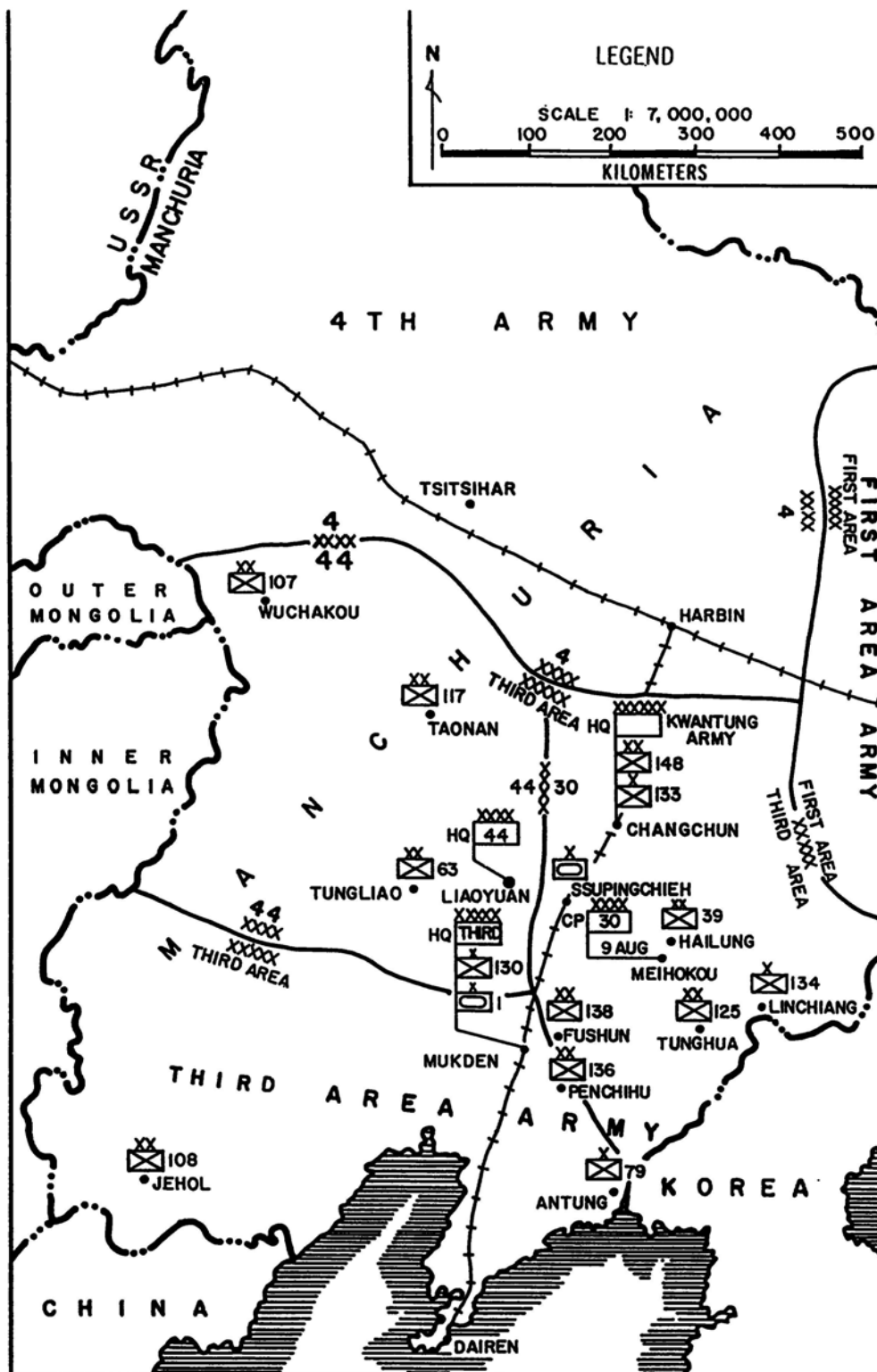


Figure 6. Japanese Third Area Army Dispositions

Source: David M. Glantz, *August Storm: The Soviet 1945 Strategic Offensive in Manchuria*, Leavenworth Papers, no. 7 (Washington, DC: U.S. Government Printing Office, February 1983), p. 31.

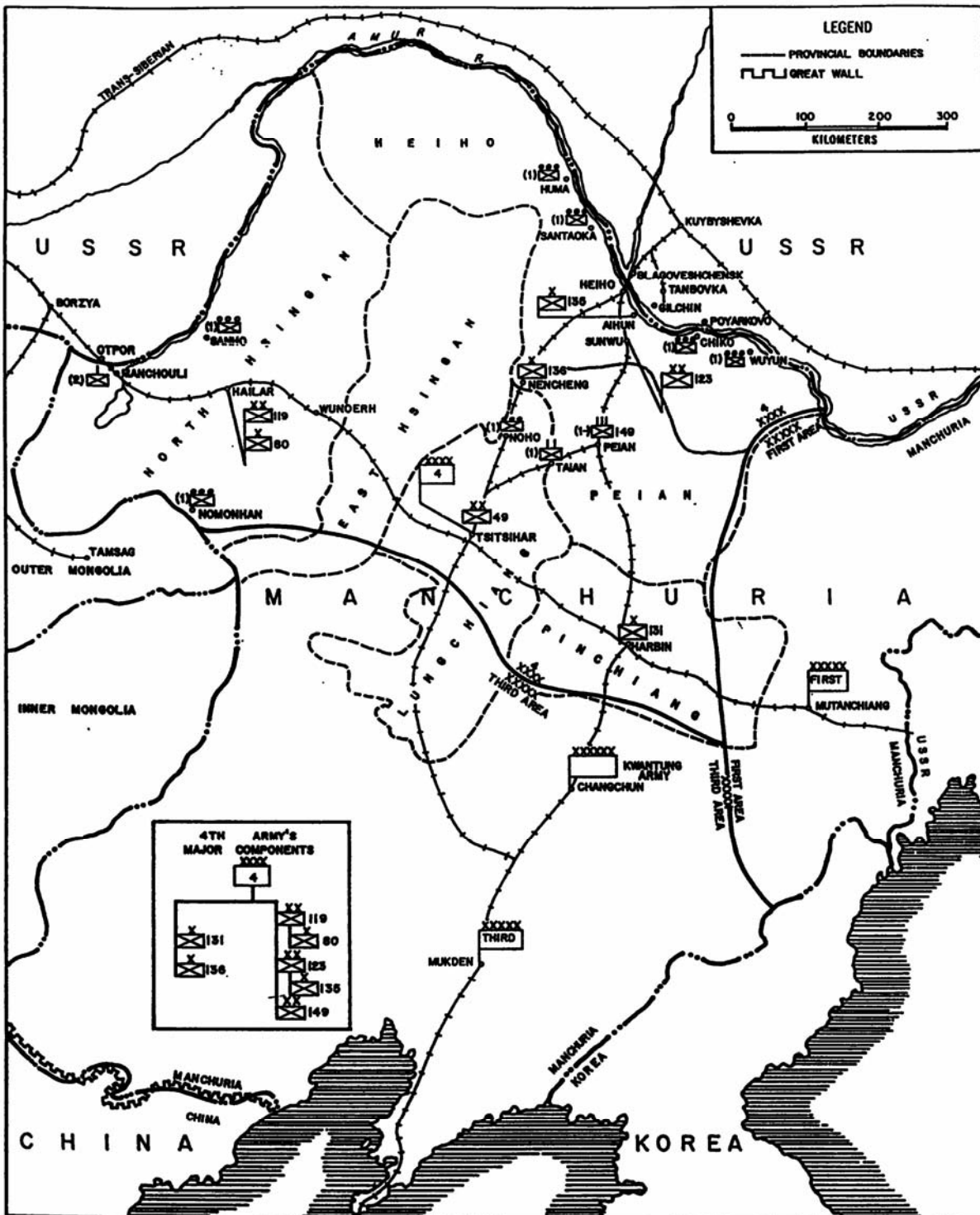


Figure 7. Japanese 4th Separate Army Dispositions

Source: David M. Glantz, August Storm: The Soviet 1945 Strategic Offensive in Manchuria, Leavenworth Papers, no. 7 (Washington, DC: U.S. Government Printing Office, February 1983), p. 32.



Figure 9. First Area Army Defense Plan

Source: David M. Glantz, *August Storm: The Soviet 1945 Strategic Offensive in Manchuria*, Leavenworth Papers, no. 7 (Washington, DC: U.S. Government Printing Office, February 1983), p. 37.

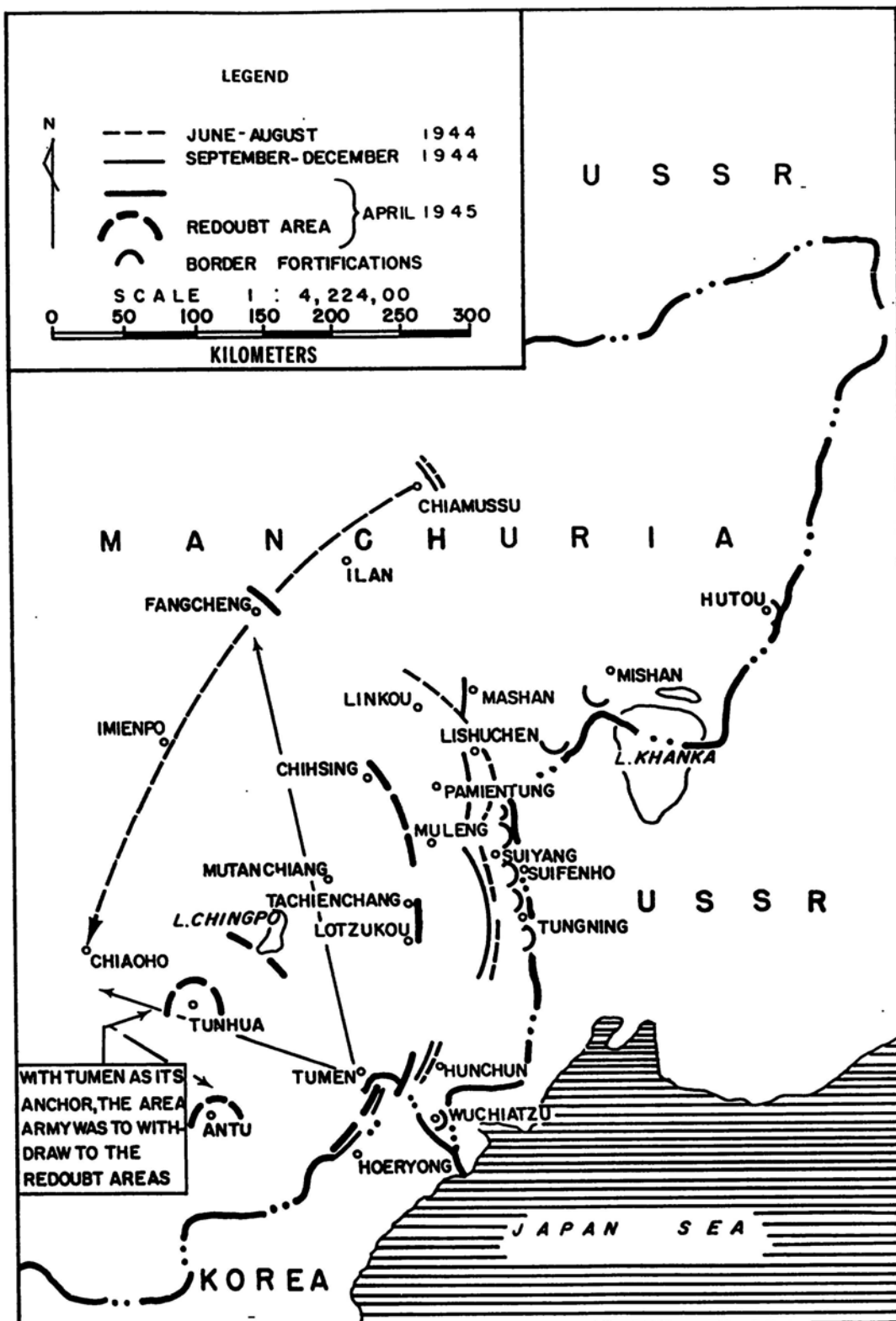


Figure 10. Third Area Army Defense Plan

Source: David M. Glantz, *August Storm: The Soviet 1945 Strategic Offensive in Manchuria*, Leavenworth Papers, no. 7 (Washington, DC: U.S. Government Printing Office, February 1983), p. 37.

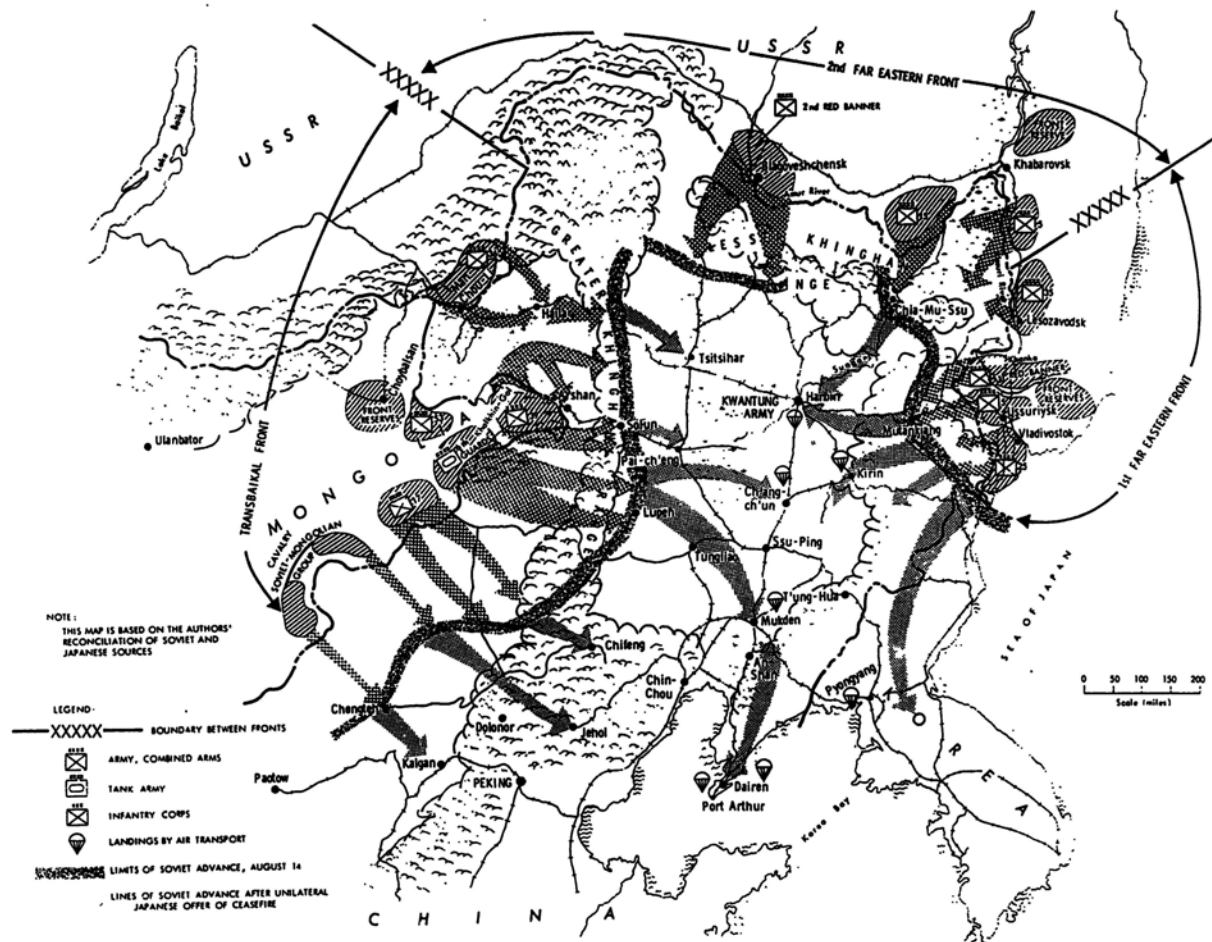


Figure 11. The Soviet Armed Forces' Manchurian Campaign, August 1945

Source: John Despres, Lilita Dzirkals, and Barton Whaley, Timely Lessons of History: The Manchurian Model for Soviet Strategy, (Santa Monica: Rand Corporation, July 1976), p 36.

Tasks	Problems	Solutions
Choose main routes and objectives.	Kwantung Army could stage counteroffensive and strategic evacuation from its main bases near points of escape and reinforcement.	Concentrate main effort in Mongolia to strike swiftly and deeply from least-expected direction and to close routes of escape or reinforcement.
Acquire field intelligence.	Strict limits on prewar collection to minimize warning of planned attack.	Intensive preattack surveillance and extensive postattack reconnaissance.
Concentrate superior strength.	Barely 40 divisions in the theater early in 1945.	Transfer as many battle-seasoned, adaptable units from the West.
Implement command and control procedures.	Threat of Japanese spoiling operations, continuous, secure communications difficult during rapid advances along widely separate routes through mountainous and hostile terrain.	Exercise contingency plans for preemptive attack in case of detection of enemy spoiling preparations; issue coded orders for secure radio communications on the march.
Coordinate rates of advance between fronts, armies, and air forces.	Extreme and varied distances to major enemy force concentrations, lines of communications, control centers, and evacuation points.	Continuous, deep, mechanized advances supported by air resupply, reconnaissance, and bombing up to enemy headquarters.
Organize troop formations.	Uncertain terrain obstacles and enemy defenses.	Allocate almost all mobile firepower to the first echelons and the advance detachments to overwhelm points and to bypass centers of resistance.
Prepare rear support services.	High planned rates of fuel and water consumption; exceptionally rugged terrain, poor roads, and deep series of obstacles; natural and military threats of disease, expected bad weather.	Augment water supplies through well-drilling; use airlift for fuel in emergencies; capture enemy supplies; train nonregulation engineers; immunize troops and motorize medical units.
Complete troop training.	Newcomers unfamiliar with the theater, and originals untested in combat.	Conduct combined-arms exercises under joint command with old and new troops operationally integrated.
Assign target priorities.	Unknown enemy designs for counterattack.	Direct commanders to pursue lucrative targets of opportunity and to converge on headquarters facilities.
Secure strategic and tactical surprise.	Forward concentration and deployment areas subject to enemy reconnaissance and surveillance.	Execute active cover and deception measures and attack along all fronts simultaneously at night either from the march or by commando action to minimize enemy warning, preparedness, and resistance.

Figure 12. Problems and Solutions of the Operational Plan

Source: John Despres, Lilita Dzirkals, and Barton Whaley, Timely Lessons of History: The Manchurian Model for Soviet Strategy, (Santa Monica: Rand Corporation, July 1976), p 30.

ENDNOTES

CHAPTER 1

1. Maj Gen Kh. Dzhelaikhov, "The Infliction of Deep Strikes," in Selected Readings From Military Thought. 1963-1973, Studies in Communist Affairs, Volume 5, Parts I & II, comp. Joseph K. Douglass Jr. & Amoretta Hoeber (Washington, D.C.: U.S. Government Printing Office, 1982), p. 106.

2. Ibid., p. 109.

3. A *desant* is "troops intended for landing, or which have already landed, on enemy-occupied territory, for the purpose of conducting combat operations. According to the transportation method used, a landing force may be amphibious, airborne, or combined; and according to its scale and purpose, such a force may be strategic, operational, or tactical." Source: Richard E. Simpkin, Red Armour: An Examination of the Soviet Mobile Force Concept (New York: Pergamon Press, 1984), p. 176.

4. James G. Snodgrass, Operational Maneuver-From the American Civil War to the OMG: What are its origins and will it work today? (School of Advanced Military Studies, Army Command and General Staff College, Fort Leavenworth, KS, 1988).

5. Glen L. Scott, Considerations for Deep Maneuver: Lessons from North Africa, 1941-1942 (Army Command and General Staff College, Fort Leavenworth, KS, 1985), pp. 13-15.

6. United States Marine Corps, Fleet Marine Force Manual 1-1. Campaigning (Washington, D.C.: Headquarters, United States Marine Corps, 1990), pp. 62-63.

7. United States Army, Field Manual 100-5. Operations (Washington, D.C.: Headquarters, United States Army, 1993), p. Glossary-2.

8. Ibid., p. 6-14.

CHAPTER 2

1. The Soviets used two concepts to define their doctrine--deep battle and deep operations. Deep battle is a tactical measure to gain success in penetrating the enemy tactical defenses by the simultaneous use of tanks, infantry, artillery, and aviation. Deep operations call for task-organized, combined-arms units that include airborne and aviation units to penetrate to the enemy's operational depth independently of the main force. This requires a penetration of sixty or more kilometers to reach the enemy's operational reserves, important C4, political, and economic sites, airfields, logistics bases, and strategic weapons.

2. David M. Glantz, Soviet Military Operational Art: In Pursuit of Deep Battle (Portland, OR: International Specialized Book Services, Inc, 1991), pp. 18-20 & 57-59 (hereafter cited as Glantz, Deep Battle).

3. Marshall Mikhail N. Tukhachevsky, called the Father of Deep Battle, was a leading Soviet military leader and theoretician from 1918 to 1938. He was commander of the Soviet Western Front in the Russo-Polish War of 1920-1921, Red Army Chief of Staff (1925-1928), assistant in the People's Commissariat of Defense after 1934, and the commander of the Pre-Volga Military District in 1937. He contributed to the modernization of Soviet armament and Army force structure in the 1920s and 1930s, and strongly influenced the creation of aviation, mechanized, and airborne forces. As a theoretician, he was the driving force behind the development of the theory of deep operations. See David M. Glantz, August Storm: The Soviet 1945 Strategic Offensive in Manchuria, Leavenworth Papers, no. 7 (Washington, DC: U.S. Government Printing Office, February 1983), p. 222.

Marshall Viktor K. Triandafillov, called the Father of Soviet Mechanized Warfare, was a close colleague of Marshall Tukhachevsky. He graduated from higher studies at the Red Army's War Academy in 1923 and was appointed head of the military Operations Directorate under Frunze and Tukhachevsky. He became the Red Army Deputy Chief of Staff in 1928. In 1930, he assumed command of the 2nd Infantry Corp but returned to be the Deputy Chief of Staff in October 1930. Marshall Triandafillov was killed in an airplane crash on 12 June 1931, while on the way to Kiev for a District deep battle conference.

Triandafillov has been described as the thinker who was sandwiched between Tukhachevsky the dreamer and Tukhachevsky the "man of action." Tukhachevsky was the operational thinker with an intense awareness of technology, and Triandafillov was the one that gave definitive form to Tukhachevsky's ideas.

G. Isserson was another military intellectual that played a key role in the development of the deep operations theory. A minor member of Tukhachevsky's team, Isserson exerted the greatest influence on the Soviet concept of land operations. He coordinated and edited the 1936 Field Regulations. What is more important, Isserson survived the Great Purge. He is credited with reinstating the importance of maneuver and deep operations following the Soviet disaster during Operation Barbarossa. Isserson continued to be the central figure for deep operations theory following World War II. See Richard E. Simpkin, Deep Battle: The Brainchild of Marshall Tukhachevskii (New York: Pergamon Press, 1987), p. 32.

4. Richard E. Simpkin, Red Armour: An Examination of the Soviet Mobile Force Concept (New York: Pergamon Press, 1984), p. 24.

5. Glantz, Deep Battle, pp. 20-21.

6. Ibid., p. 22.

7. Richard E. Simpkin, Race to the Swift: Thoughts on Twenty-first Century Warfare (New York: Pergamon Press, 1985), pp. 37-38.

8. Glantz, Deep Battle, pp. 69-71.

9. Ibid., p. 44.
10. Ibid., p. 25.
11. Richard E. Simpkin, Deep Battle: The Brainchild of Marshall Tukhachevskii (New York: Pergamon Press, 1987), p. 50.
12. A Soviet *front* is comparable to an army group.
13. Glantz, Deep Battle, pp. 80 & 82.
14. Simpkin, Deep Battle, pp. 46-47.
15. Col A. Yekimovskiy and Col N. Mararov, "The Tactics of the Red Army in the 1920s and 1930s," in Selected Readings From Military Thought, 1963-1973, Studies in Communist Affairs, Volume 5, Parts I & II, comp. Joseph K. Douglass Jr. & Amoretta Hoeber (Washington, D.C.: U.S. Government Printing Office, 1982), p. 94.
16. Simpkin, Deep Battle, p. 40.
17. Earl F. Ziemke, "The Soviet Theory of Deep Operations," Parameters 13 (June 1983), p. 27.
18. Simpkin, Deep Battle, pp. 48-49.
19. There is a link between Soviet deep battle theory (pre-World War II era) and German blitzkrieg. The Tsarist officer corps, of which Tukhachevsky was one, seems to have drawn on Western Europe for ideas and equipment. Tukhachevsky's ideas on deep battle quickly blossomed after he attended the German staff college in the late 1920s. Apparently, this is where the seed was planted for his concepts of deep battle. There are differences between Soviet offensive doctrine (deep battle) and German blitzkrieg. However, there are also many similarities. See Simpkin, Red Armor, pp. 25-26. Also, Heinz Guderian knew the Soviet theory of deep operations well enough to consider it as a possible model for German armor doctrine. See Ziemke, "The Soviet Theory of Deep Operations," p. 23. LTC Paul Tiberi provides a detailed comparison in his article "German versus Soviet Blitzkrieg," Military Review 65 (September 1985), pp. 63-71.
20. Glantz, Deep Battle, p. 109.
21. Ibid., p. 28.
22. Ibid., p. 28.
23. Simpkin, Deep Battle, p. 60.

24. Ibid., p. 273.

25. This is a compilation from many sources that include those books and articles by Armstrong, Bellamy, Dick, Donnelly, Glantz, Hines, Simpkin, and Ziemke cited in the Bibliography.

26. Gen P. Kurochkin, "Operations of Tank Armies in Operational Depth," in Selected Readings From Military Thought, 1963-1973, Studies in Communist Affairs, Volume 5, Parts I & II, comp. Joseph K. Douglass Jr. & Amoretta Hoeber (Washington, D.C.: U.S. Government Printing Office, 1982), p. 94.

27. Richard Armstrong, "Mobile Groups: Prologue to OMG," Parameters 25 (Summer 1986), p. 66.

28. Glantz, Deep Battle, pp. 177 & 179.

29. Ibid., p. 207.

30. Ibid., p. 211.

31. Ibid., p. 255.

32. Ibid., p. 227.

33. This is a compilation from many sources that include those books and articles by Armstrong, Bellamy, Dick, Donnelly, Glantz, Hines, Simpkin, and Ziemke cited in the Bibliography.

34. John G. Hines and Phillip A. Peterson, "The Soviet Conventional Offensive in Europe," Military Review 64 (April 1984), p. 15.

35. James F. Holcomb and Graham H. Turbiville, "Soviet desant forces--Part 1: Soviet airborne and air-assault capabilities," International Defense Review 21 (No. 9, 1988), p. 1077.

36. Simpkin, Race to the Swift, p. 46.

37. This is a compilation from many sources that include those books and articles by Hines, Holcomb, and Simpkin.

38. Simpkin, Deep Battle, p. 55.

39. Simpkin, Race to the Swift, p. 46.

40. Glantz, Deep Battle, p. 61.
41. C. J. Dick, "Soviet Operational Art-Part 2: The fruits of experience," International Defense Review 21 (No. 8, 1988), p. 901.
42. C. J. Dick, "Soviet Operational Manoeuvre Groups - a closer look," International Defense Review 16 (No. 6, 1983), p. 775.
43. Armstrong, "Mobile Groups," p. 64.
44. Hines, "The Soviet Conventional Offensive in Europe," p. 8.
45. Dick, "Soviet Operational Art," p. 901.
46. Armstrong, "Mobile Groups," p. 67.
47. David M. Glantz, "Soviet Operational Formation for Battle: A Perspective," Military Review 63 (February 1983), p. 11.

CHAPTER 3

1. David M. Glantz, August Storm: The Soviet 1945 Strategic Offensive in Manchuria, Leavenworth Papers, no. 7 (Washington, DC: U.S. Government Printing Office, February 1983), p. 60.
2. Ibid., p. 1.
3. Ibid., p. 29.
4. John Despres, Lilita Dzirkals, and Barton Whaley, Timely Lessons of History: The Manchurian Model for Soviet Strategy, (Santa Monica: Rand Corporation, July 1976), pp. 16 & 28 (hereafter cited as Despres, Timely Lessons).
5. Ibid., pp. 26-27.
6. Ibid.
7. Ibid., p. 27.
8. Lilita I. Dzirkals, "Lightning War" in Manchuria: Soviet Military Analysis of the 1945 Far East Campaign, (Rand Corporation, January 1976), p. 8.
9. Glantz, Soviet Strategic Offensive, p. 29.
10. Ibid., p. 34.

11. Dzirkals, "Lightning War" in Manchuria, p. 37.
12. Glantz, Soviet Strategic Offensive, p. 183.
13. Ibid., p. 98.
14. Ibid., p. 110.
15. Ibid., p. 165-166.
16. Ibid., pp. xvii-xviii.
17. Dzirkals, "Lightning War" in Manchuria, p. 11.
18. Ibid., pp. 48-50.
19. Glantz, Soviet Strategic Offensive, pp. xviii & 163.
20. William Fowler, "Russia's war against Japan." The Marshall Cavendish Illustrated Encyclopedia of WW II, (Marshall Cavendish Corporation: New York), p. 3000.
21. Glantz, Soviet Strategic Offensive, p. 3.
22. Raymond I. Garthoff, "Soviet Operations in the War with Japan, August, 1945," United States Naval Institute Proceedings, May 1966, pp. 52.
23. Glantz, Soviet Strategic Offensive, p. 2.
24. Despres, Timely Lessons, p. 17.
25. Glantz, Soviet Strategic Offensive, p. 4.
26. Glantz, Soviet Strategic Offensive, p. 39.
27. Col G. Chernykh, "On the Employment of the 6th Guards Tank Army in the First Echelon of a Front," in Selected Readings From Military Thought, 1963-1973, Studies in Communist Affairs, Volume 5, Parts I & II, comp. Joseph K. Douglass Jr. & Amoretta Hoeber (Washington, DC: U.S. Government Printing Office, 1982), p. 343.
28. Despres, Timely Lessons, p. ix.
29. Garthoff, "Soviet Operations," p. 52.
30. Despres, Timely Lessons, p. 63.

31. Garthoff, "Soviet Operations," p. 55.
32. Despres, Timely Lessons, p. 63.
33. Dzirkals, "Lightning War" in Manchuria, p. 82.
34. Despres, Timely Lessons, p. 66.
35. Despres, Timely Lessons, pp. 1-5.

CHAPTER 4

1. Dick, "Soviet Operational Manoeuvre Groups - a closer look," p. 776.
2. Simpkin, Race to the Swift, p. 135.

3. Momentum represents the resistance of a moving body to a change in speed or velocity. Strength, or combat worth, derives from momentum. Simpkin writes that maneuver is a dynamic, three-dimensional system; it is concerned with the interaction of mass, time, and space. This threefold relationship is most commonly known as momentum. Strength, therefore, is not based on mass alone, but on mass and velocity. Simpkin expands this by writing that strength is based on three concepts-mass, tempo, and leverage. Momentum, as defined here, varies with tempo and mass and, thus, the ability to gain depth (leverage).

Simpkin further develops combat worth as the product of physical fighting power and tempo. The survivability of a force is enhanced by an increase in either fighting power or tempo, or both. Combining the use of light armor with helicopters for speed and supportability results in a more effective force than the 'tank force' concept (Simpkin's airmechanization concept). From this, it is reasonable to assume that light armor forces, supported by rotary-and fixed-winged aircraft, are suitable for an OMG role. See Simpkin, Red Armour, p. 150; Simpkin, Deep Battle, pp. 136-139; and Simpkin, Race to the Swift.

4. Thomas C. Linn, "Over-The-Horizon Assault: The Future of the Corps," Marine Corps Gazette 71 (No. 12, December 1987), p. 44.

5. United States Marine Corps, Fleet Marine Force Reference Publication 14-7. Over-The-Horizon (OTH Amphibious Operations Operational Concept (Quantico, VA: Marine Corps Combat Development Command, 1991), p. 1.

6. Ibid., p. 11.
7. Ibid., pp. 13-14.
8. Simpkin, Deep Battle, p. 263.
9. Ibid., pp. 262-263.

10. Soviet manuals dealing with the C³ aspects of deep operation theory either never went past the draft stage or were destroyed in the Great Purge. Simpkin states after his review of Tukhachevsky's material, he believes that Tukhachevsky and his colleagues considered the Prussian type of directive control to be essential to the success of deep operations. That it was never formalized is attributed to fear of bringing the weight of political centralism down upon them. See Simpkin, Deep Battle, p. 51.

11. For a discussion of command relationships in joint operations, see Joint Pub 3-0, Doctrine for Joint Operations. For a discussion of the doctrinal command relationships for amphibious operations, see Joint Pub 3-02, Joint Doctrine for Amphibious Operations.

CHAPTER 5

1. United States Marine Corps, Fleet Marine Force Manual 1. Warfighting (Washington, D.C.: Headquarters, United States Marine Corps, 1989), pp. 57-58.

2. L. D. Holder, "Offensive Tactical Operations," Military Review 73 (December 1993), p. 49.

3. Simpkin, Race to the Swift, p. x.

BIBLIOGRAPHY

Books

Combat Studies Institute, U.S. Army Command And General Staff College. RB 20-19. Selected Readings in Military History: Soviet Military History. Volume I: The Red Army. 1918-1945. Fort Leavenworth, KS: 1984.

Combat Studies Institute, U.S. Army Command And General Staff College. RB 20-19. Selected Readings in Military History: Soviet Military History. Volume II: The Red Army Since 1945. Fort Leavenworth, KS: 1984.

Despres, John; Dzirkals, Lilita; and Whaley, Barton. Timely Lessons of History: The Manchurian Model for Soviet Strategy. Santa Monica: Rand Corporation, July 1976.

Douglass Jr., Joseph D. & Hoeber, Amoretta. Selected Readings From Military Thought, 1963-1973. Studies in Communist Affairs, Volume 5, Parts I & II. Washington, D.C.: U.S. Government Printing Office, 1982.

Dzirkals, Lilita I. "Lightning War" in Manchuria: Soviet Military Analysis of the 1945 Far East Campaign. Rand Corporation, January 1976.

Glantz, David M. Soviet Military Operational Art: In Pursuit of Deep Battle. Portland: International Specialized Book Services, Inc, 1991.

August Storm: The Soviet 1945 Strategic Offensive in Manchuria. Leavenworth Papers, no. 7. Washington, D.C.: U.S. Government Printing Office, February 1983.

August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. Leavenworth Papers, no. 8. Washington, D.C.: U.S. Government Printing Office, June 1983.

Mackintosh, Malcolm. Juggernaut: A History of the Soviet Armed Forces. New York: The MacMillan Company, 1976.

Simpkin, Richard E. Deep Battle: The Brainchild of Marshall Tukhachevskii. New York: Pergamon Press, 1987.

Race to the Swift: Thoughts on Twenty-First Century Warfare. New York: Pergamon Press, 1985.

Red Armour: An Examination of the Soviet Mobile Force Concept. New York: Pergamon Press, 1984.

United States Army. Field Manual 100-5, Operations. Washington, D.C.: Headquarters, United States Army, 1993.

United States Marine Corps. Fleet Marine Force Manual 1. Warfighting. Washington, D.C.: Headquarters, United States Marine Corps, 1989.

Fleet Marine Force Manual 1-1. Campaigning. Washington, D.C.: Headquarters, United States Marine Corps, 1990.

Fleet Marine Force Reference Publication 14-7. Over-The-Horizon (OTH) Amphibious Operations Operational Concept. Quantico, VA: Marine Corps Combat Development Command, 1991.

Vigor, P. H. Soviet Blitzkrieg Theory. New York: St. Martin's Press, Inc., 1983.

Werth, Alexander. Russia at War: 1941-1945. New York: E. P. Dutton & Co., Inc, 1964.

Articles

Armstrong, Richard. "Mobile Groups: Prologue to OMG." Parameters 25 (Summer 1986): 58-69.

Bellamy, Chris. "Antecedents of the Modern Soviet Operational Manoeuvre Group (OMG)." RUSI. Journal of the Royal United Services Institute for Defence Studies 129 (September 1984): 50-58.

Benson, Kevin C. M. and Shelton, H. Hugh. "Depth and Simultaneity: Half the Battle." Military Review 73 (December 1993): 57-63.

Dick, Charles. J. "Soviet Operational Manoeuvre Groups - a closer look." International Defense Review 16 (No. 6, 1983): 769-776.

"Soviet Operational Art-Part 1: The fruits of experience." International Defense Review 21 (No. 7, 1988): 731-761.

"Soviet Operational Art-Part 2: The keys to victory." International Defense Review 21 (No. 8, 1988): 867-908.

"Soviet Operational Concepts: Part I." Military Review 65 (September 1985): 29-45.

"Soviet Operational Concepts: Part II." Military Review 65 (October 1985): 4-19.

Donnelly, C. N. "The Soviet Operational Maneuver Group: A New Challenge for NATO."

Military Review 63 (March 1983): 43-60.

"The Soviet Operational Manoeuvre Group - a new challenge for NATO."
International Defense Review 15 (No. 9, 1982): 1177-1186.

Franks, Frederick M. "Full-Dimensional Operations: A Doctrine for an Era of Change."
Military Review 73 (December 1993): 5-10.

Garthoff, Raymond L. "Marshall Malinovsky's Manchurian Campaign." Military Review 46
(October 1966): 50-61.

"Soviet Operations in the War with Japan, August, 1945." United States Naval
Institute Proceedings, May 1966, pp.50-63.

Gay, Mark P. "Soviet and US Operational Styles of War." Military Review 65 (September
1985): 48-53.

Glantz, David M. "Soviet Operational Formation for Battle: A Perspective." Military
Review 63 (February 1983): 2-12.

"Soviet Offensive Ground Doctrine Since 1945." Air University Review 34
(March-April 1983): 24-35.

Hines, John G. and Peterson, Phillip A. "The Warsaw Pact Strategic Offensive - the OMG in
context." International Defense Review 10 (No. 10, 1983): 1391-1395.

"The Soviet Conventional Offensive in Europe." Military Review 64 (April 1984):
2-29.

Holcomb, James F. and Turbiville, Graham H. "Soviet desant forces--Part 1: Soviet
airborne and air-assault capabilities." International Defense Review 21 (No. 9,
1988): 1077-1082.

"Soviet desant forces-Part 2: Broadening the desant concept." International
Defense Review 21 (No. 10, 1988): 1259-1264.

Holder, L. D. "Offensive Tactical Operations." Military Review 73 (December 1993):
48-56.

"Maneuver in the Deep Battle." Military Review 62 (May 1982): 54-61.

Jacobs, Walter Darnell. "Tukhachevsky Rediscovered." Military Review 44 (August 1964):
65-75.

Lee, Gary R. and Reiss, David M. "How to Support Deep Operations." Army Logistician
18 (No. 6, 1986): 22-26.

Linn, Thomas C. "Over-The-Horison Assault: The Future of the Corps." Marine Corps Gazette 71 (No. 12, December 1987): 44-47.

Morris, Charles W. "MLRS and Maneuver Warfare." Marine Corps Gazette 75 (No. 8, August 1991): 110-114.

Nizolak, Jr. Joseph P. "The Soviet OMG: Fire Support Lessons for AirLand Battle-Future." Field Artillery (August 1991): 18-21.

"Operational Manoeuvre Group (OMG)." Janes Defence Review 4 (No. 3, 1983): 279-280.

Shields, Henry S. "Why the OMG?" Military Review 65 (November 1985): 4-13.

Swita, Bogdan. "The OMG in the Offense." Military Review 73 (November 1993): 30-40.

Tiberi, Paul. "German versus Soviet Blitzkrieg." Military Review 65 (September 1985): 63-71.

von Sandrart, Hans Henning. "Considerations of the Battle in Depth." Military Review 67 (October 1987): 8-15.

Ziemke, Earl F. "The Soviet Theory of Deep Operations." Parameters 13 (June 1983): 23-33.

Defense Technical Information Center Documents

Brinkley, W. A. "An American Operational Maneuver Group." Army War College, Carlisle Barracks, PA, 1985.

Cain III, Francis M. "The Ardennes - 1944: An Analysis of the Operational Defense." School of Advanced Military Studies, Army Command and General Staff College, Fort Leavenworth, KS, 1986.

Cleveland, William R. "Over-the Horizon: Ready or Not?" School of Advanced Military Studies, Army Command and General Staff College, Fort Leavenworth, KS, 1991.

Crawford, Darrell E. "Deep Operations in Airland Battle Doctrine: The Employment of U.S. Ground Forces in Deep Operational Maneuver." School of Advanced Military Studies, Army Command and General Staff College, Fort Leavenworth, KS, 1989.

Drumm Jr., Robert H. "An American OMG? The Air Assault Division Employed As An Operational Maneuver Group." School of Advanced Military Studies, Army Command and General Staff College, Fort Leavenworth, KS, 1992.

Glantz, David M. "Deep Attack: The Soviet Conduct of Operational Maneuver." Army Soviet Army Studies Office, Army Combined Arms Center, Fort Leavenworth, KS, 1987.

Mock, David C. "A Look at Deep Operations: The Option of Deep Maneuver." School of Advanced Military Studies, Army Command and General Staff College, Fort Leavenworth, KS, 1987.

Moore, Richard S. "Blitzkrieg from the Sea: Maneuver Warfare and Amphibious Operations." Naval Weapons Center, China Lake, CA, 1983.

Priddy, John R. "Desant from the Sea: An Option for the Operational employment of a Marine Air-Ground Task force." School of Advanced Military Studies, Army Command and General Staff College, Fort Leavenworth, KS, 1990.

Rippy, J. W. "The Impact of Maneuver Warfare Strategy/Tactics on the U.S. Marine Corps' Integrated Air/Ground (MAGTF) Doctrine." Naval War College, Newport, RI, 1984.

Scott, Glen L. "Considerations for Deep Maneuver: Lessons from North Africa, 1941-1942." Army Command and General Staff College, Fort Leavenworth, KS, 1985.

Snodgrass, James G. "Operational Maneuver from the American Civil War to the OMG (Operational Maneuver Group). What are its Origins and will it Work Today?" School of Advanced Military Studies, Army Command and General Staff College, Fort Leavenworth, KS, 1988.

Tanksley, David M. "What is the Soviet Operational Maneuver Group and What Are Its Implications for the U.S. Army's Airland Battle Doctrine?" Army Command and General Staff College, Fort Leavenworth, KS, 1985.

Wagner, Glenn. "Is the Marine Corps' Doctrine of Maneuver Warfare Synergetic with the Joint Doctrine for Amphibious Operations?" Naval War College Department of Operations, Newport, RI, 1992.